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**THE DEVELOPMENT OF AN INSTRUMENT
TO MEASURE GLOBAL-MINDEDNESS**

by
E. Jane Hett

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor of Education
University of San Diego

1993

Dissertation Committee

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ABSTRACT OF THE DISSERTATION

Development of an Instrument to Measure **Global-Mindedness**

by

E. Jane Hett

The leaders of the twenty-first century will need remarkable insight into other cultures and peoples and unprecedented concern for the well-being of the world community. The generally stated goal of global education in the United States is to foster a sense of global belonging through lessening ethnocentrism, increasing knowledge of other cultures, and promoting a concern for the global ecosystem. Despite the resources dedicated to this end, only limited research has been done to assess the effectiveness of programs designed to foster global-mindedness.

Global-Mindedness, as the definition emerged through the qualitative component of this research, is a worldview in which one sees oneself as connected to the global community and feels a sense of responsibility to its members. This commitment is reflected in the individual's attitudes, beliefs, and behaviors. The intent of this research was to develop an instrument to measure this construct.

An analysis of the theoretical and empirical literature and extensive interviews provided the basis for the items in the scale. The instrument was tested with 396 undergraduate

students at the University of California, San Diego. Content validity was established and a factor analysis confirmed construct validity. Correlation coefficients were established between reported behaviors and global-mindedness scores.

The final version of the Global-Mindedness Scale contained 30 items representing 5 factors, including (a) Responsibility, (b) Cultural Pluralism, (c) Efficacy, (d) Globalcentrism, and (e) Interconnectedness. Scores differed significantly based on gender, academic experience, political views, participation in internationally-oriented activities, and international experience.

The instrument will be useful for assessing attitudes before and after classroom experiences or participation in study abroad programs.

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DEDICATION

To my parents,
Ross and Penny Hett,
whose belief in me
has always made all the difference.

ACKNOWLEDGEMENTS

I wish to express my appreciation: to the members of my committee who read and reread this material, offering sound advice and encouragement; to the vision of Fifth College, which guided this dissertation; to the dozens of people who were willing to make the time to be interviewed or in some way assist me; to my very good friends and colleagues at Fifth College, especially, Deana Slater and Nora Nawar-Hansen, with whom I shared every page of this project and whose support made it a much more manageable task; to my special friend Chaseli, from whom I truly learned what global-mindedness means; and most of all, to Mary Powers, my friend, my solace, and the acknowledged queen of APA - Thank you.

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CHAPTER ONE
STATEMENT OF THE ISSUE

Introduction

It is generally accepted that fostering the development of a global perspective in students is one of the most important challenges facing educators today (Bonham, 1980; Hufstedler, 1980; Smelser, 1986). The dominant ideologies of ethnocentrism and self-interest which guide most political decisions have led us perilously close to either destroying or irreparably damaging our planet.

The fate of the world's people is unalterably interconnected environmentally, economically and politically. A nuclear accident, acid rain, or an oil spill all have consequences that reach far beyond the borders of one or two countries. International trade now represents thirty-three percent of U.S. corporate profits. Foreign investment in the United States, by both individuals and corporations, is now estimated at \$1.5 trillion, most of it since 1974 (Council on International Educational Exchange, 1988). Changes in the political system in one country inspire sweeping unrest and reaction in a dozen others. Most political thinking and academic disciplines are based

on the understanding that our economic, social and cultural world must necessarily be understood in terms of the experience of individual nations, societies, or cultures. The "twin phenomena of internationalization and interdependence are rendering this fundamental premise questionable and demand novel ways of thinking, analyzing, and understanding" global problems (Smelser, 1986, p. 30).

The myriad of ways in which exchanges between citizens of different countries occur outside the context of formal diplomacy, which has been referred to as the global conversation (Nathanson, 1989), is profoundly changing the international system. The conversation includes instant international telephone connections, teleconferences which allow Soviet and American citizens to speak directly to one another, computer links between scholars, and countless other citizen-to-citizen exchanges. Opportunities exist for individuals from different nations to develop personal and educational connections around the world. Each year about 350,000 foreign students study in the United States and approximately 50,000 Americans study abroad (Council on International Educational Exchange, 1988). The process of internationalization has been pervasive and profound.

The greatest hope for a world which now has the ability to destroy itself within hours is to educate for global-minded citizens who view themselves as part of a larger world system, who are free from the restraints of blind

patriotism, and who are knowledgeable about various cultural frameworks and value systems. But a change of this magnitude will represent a major shift within the American educational system which, until very recently, has been almost exclusively Eurocentric. Research in high schools reveals that students are particularly weak in their knowledge of geography, history, and economics (Boyer, 1983; Goodlad, 1983; Ravitch & Finn, 1987; Zuckerman, 1984). Thirty-four states still require no world history course in their high schools and only five percent of American college graduates reach a meaningful proficiency in a second language (Council of International Educational Exchange, 1988). This lack of commitment to educating the citizens of the future does not meet the exigencies of today's world. Tomorrow's leaders must be educated to develop the knowledge and insight necessary to deal effectively with other cultures. As Hufstedler (1980) said:

The growing disparities between the realities of an interdependent world and the relative parochialism of our schools and colleges cannot help damaging the nation's capacity to decide its wisest future course. . . . We cannot hope to understand twentieth-century dilemmas with nineteenth-century curricula. (p. 8 - 9)

Purpose of the Study

The purpose of this study was to develop an instrument to measure global-mindedness in college students, using the

process of retroductive triangulation developed by Quayhagen & Quayhagen (1988). While there is a growing emphasis on a globalized curriculum, only limited research has been done on the effects of participation in this kind of academic experience. An assumption is often made that studying other cultures and their histories makes the student a better global citizen, that is, he or she feels more concerned about and connected to people around the world. More research has been done on the results of the study abroad experience, but it is still relatively sparse. The Global-Mindedness Scale (GMS) was developed to measure attitudes of students related to their sense of connection to, interest in, and responsibility for, the global community and the behaviors associated with this perspective. It was designed to be used to assess the affective change that might result from a global studies class, a study abroad experience, or significant contact with people outside one's own culture.

Research Questions

I sought to answer the following questions:

1. What is global-mindedness?
2. What attitudes, beliefs and behaviors do persons with extensive cross-cultural experience, expertise in global education, or a strong commitment to the world community, believe to be associated with global-mindedness?
3. What research has been done to identify concepts related to global-mindedness?

4. What instruments have been developed to measure concepts related to global-mindedness?
5. What characteristics does the literature suggest might be predictors of global-mindedness?
6. Can a valid and reliable instrument which expands upon already existing instruments be developed for the measurement of global-mindedness?
7. Does the instrument discriminate among significantly different levels of global-mindedness based on characteristics suggested by a review of the relevant literature?

These research questions were addressed through the development of the Global-Mindedness Scale and the subsequent testing of its psychometric properties. The research includes a thorough review of the literature and related empirical measures and a series of interviews with persons who, by their personal and professional involvement or academic expertise, demonstrated an understanding of the construct of global-mindedness. The five themes that emerged through this process and later became the dimensions of the first version of the instrument were:

Interconnectedness of Humanity, Cultural Pluralism, Ethic of Responsibility/Care, Futurist Orientation, and Behaviors.

The instrument was administered to 396 undergraduates at the University of California, San Diego. The psychometric properties of the new instrument were

determined through the establishment of content validity, internal consistency reliability, exploratory factor analysis, calculation of Pearson product-moment correlations, and correlations between scores and demographic data and reported behaviors.

Relevance to Leadership

Leadership has variously been defined as a collective endeavor in which leaders engage with followers to bring about "intended, real change" (Burns, 1978, p. 461); as a collective, "symbiotic relationship" between leaders and followers that achieves significant change (Bennis and Nanus, 1985, p. 217); as a "dialectical relationship" oriented towards social change and the improvement of human community (Foster, 1988, p. 8); and as an "influence relationship among leaders and followers who intend real changes that reflect [their] mutual purposes" (Rost, 1988, p. 17). The two common strands in these definitions are the relationship or dialogue with the community that the leader serves and the changes he or she strives to achieve through that relationship. The state of the world demands that political leaders establish a dialogue with the world community and that changes be evaluated in light of their impact on people far beyond national borders.

Burns (1978), a prominent leadership scholar, wrote: The paramount question facing all the peoples of the world is the global organization and management of

conflict - how to shift the axis of conflict so that needs and aspirations could [sic] be appealed to and aggregated on a worldwide basis, so that right-wing as well as socialistic and other left-wing parties could be organized on a world scale, and so that rival leaders of global parties and movements could build links among like-minded people across national boundaries. (p. 453-454)

Foster (1986) said that the goal of leadership is to reach, "a standard of rational discourse in which all arguments can be heard without regard to the class or status of the respondent" (p. 186). On a global scale this discourse must include all peoples, not only the traditional power holders. To do this will require consciously educating for a less ethnocentric, more global ethic so that future leaders will understand that their own self-interest is closely linked to that of all people, now and in the future (Harman, 1976).

The United States, as a leader in supporting democratic institutions and universal human rights, is among the nations most able to influence the development of this global ethic. In order to do this we must educate citizens who have the skills and knowledge to deal effectively with international problems and conflicts across cultures (Pike & Barrows, 1979). Most of the country's future leaders will experience the American higher education system before

assuming positions of influence in industry, government, or education. The challenge of graduating students who possess a global worldview is critical, for they are inheriting a complex and difficult world which requires leadership that can envision cooperative, global solutions. For this reason it is crucial that colleges and universities evaluate attempts to internationalize the curriculum and develop global-minded citizens.

Definition of Terms

The following terms will be used throughout this research:

Attitudes: Mueller (1986), drawing on the work of Thurstone (1929), provides the definition of attitude used in this research. "Attitude is (1) affect for or against, (2) evaluation of, (3) like or dislike of, or (4) positiveness or negativeness toward a psychological object" (p. 3).

Beliefs: Beliefs represent the information a person has about the object which may be a person, a group of people, a behavior, a policy, or an event. This cognitive component of attitude measurement, indicates an individual's knowledge, opinions, thoughts or stereotypes about the object (Fishbein & Ajzen, 1975).

Behavioral Intention: This aspect of attitude measurement refers to the individual's behavioral intentions and actions with respect to the object. This term is

appropriate when attitudes and beliefs are linked to a behavior (Fishbein & Ajzen, 1975).

Global Education: There is not a single agreed-upon definition of global education to be found in the literature (Kneip, 1985). Muessig and Gilliom (1981) provide a useful, six component synthesis of the concept. They state that global education must imbue students with the following beliefs, convictions, and concerns:

The first is a "spaceship earth" -- ecological way of viewing the world. The unity of the human species and the diversity of cultures is [the] second component. Third, the interdependence of human relationships has been included. The idea of multiple loyalties appears as the fourth element. The fifth constituent concerns human rights. Futurism is sixth. (p. 7)

Global-mindedness: Global-mindedness is not a term generally found in the literature. Muessig and Gilliom's (1981) six components of global education served as a preliminary definition. People who are global-minded possess an ecological world view, believe in the unity of humankind and the interdependence of humanity, support universal human rights, have loyalties that extend beyond national borders, and are futurists. This definition was refined through the

qualitative component of the research.

International Exchange: International exchange refers to the multitude of organized programs, as well as those which students devise for themselves, that allow them to work, study or live for significant periods of time in a culture other than their own.

Retroduction: Retroduction is, "a theory development strategy that combines inductive and deductive methods in a logical and sequential manner" (Fawcett & Downs, 1986, p. 58). This definition builds on the work of Hanson (1958).

Triangulation: Triangulation is a technique for corroborating data by testing a theory or proposition against information obtained from other research methods, sources of evidence or theories (Guba & Lincoln, 1981). The three sources of information that were triangulated in this research were a review of relevant literature, existing instruments which measured constructs related to global-mindedness, and information obtained through a series of interviews.

Retroductive Triangulation

Retroductive triangulation, a methodology for instrument development, was developed by Quayhagen and Quayhagen (1988) and utilized by Dempster (1990) in her dissertation on the development of an instrument to measure the construct of autonomy. These two references and course

notes (Quayhagen, 1989) served as sources for the methodology and organizational structure of this research.

Quayhagen (1989) stated that retroductive triangulation is grounded in sociological theory construction research drawn from Schrag (1967). In this approach data from a variety of sources are used to identify the pertinent dimensions of a construct and to generate hypotheses regarding its properties. Schrag wrote that retroduction, a concept discussed by Hanson (1958), is a useful technique for theory generation since:

The defects of inductive and deductive methods are often taken into account by theorists who work simultaneously with both the data of observation and the logical abstractions inherent in theoretical concepts and assumptions. By a technique of successive approximations, the concepts and assumptions of theories may be brought into closer alignment with relevant evidence, while at the same time maintaining the logical consistency required of deductive systems. (p. 237)

The seven phases of retroductive triangulation are outlined below (Dempster, 1990; Quayhagen, 1989; Quayhagen & Quayhagen, 1988).

1. Phase One is the deductive phase in which data from a literature review (theory triangulation) and an analysis of related empirical instruments (empirical

triangulation) are compiled in order to identify the dimensions underlying the construct and to determine which of those dimensions has already been measured by existing scales.

2. Phase Two is the inductive phase in which interviews are conducted (data triangulation) in order to obtain more information about the area of interest from people who have a good understanding of it. These data come, "from the people" (Quayhagen, 1989) and serve to further clarify the meaning of the topic.

3. In Phase Three a conceptual schema is developed to link the three data sources. This conceptual framework provides direction for the development of the scale.

4. In Phase Four an assessment protocol which identifies the measured and unmeasured components of the construct is developed.

5. Phase Five is the stage in which the initial version of the scale is developed. Items designed to measure previously unmeasured aspects of the construct are written and a scaling and scoring format is established. A panel of expert judges establishes the content validity of the new instrument.

6. During Phase Six the psychometric properties of the scale are tested. Internal consistency reliability, exploratory factor analysis, construct validity, and an assessment of the scale's dimensionality are performed.

7. Phase Seven, which was not conducted during this research, involves final revision of the tool to prepare it for use in research.

Limitations and Assumptions

The fact that the sample was composed of American college students limits the generalizability of the research to a United States setting. Students at the University of California, San Diego, from which the sample population was recruited, are from families that are above the average socio-economic status, and are very high achievers scholastically. These factors may also serve to limit the generalizability of this research.

A second limitation is that the Global-Mindedness Scale may be time bound. Changing social norms and political situations could make items on this instrument difficult for a student to understand twenty years from now.

The third and most dramatic limitation was entirely beyond my control. During the course of this research a massacre in Tiennanmen Square in Beijing profoundly changed America's relationship with the People's Republic of China; the Berlin Wall, a symbol of a divided Europe for thirty years, fell; the Soviet Union, under the leadership of Gorbachev moved from the status of "evil empire," as President Reagan had decried it in the early 1980s, to ally and recipient of American foreign aid; and finally, and most significantly, Saddam Hussein, president of Iraq, invaded

Kuwait. The students completed the instrument during the week prior to the deadline by which Hussein had been told to withdraw from Kuwait or face a declaration of war by the United States and its allies.

Although an effort was made to sample students at various stages of their academic career, the sample contains more freshmen than sophomores, juniors or seniors. I had not completed sampling when the United States entered into a military conflict with Iraq. Further collection of data on global attitudes, with the country at war, seemed meaningless. Therefore upperclass students and those at Warren and Revelle Colleges, two of the University of California at San Diego's five undergraduate colleges, were not adequately represented in the sample.

The world political environment brought Americans to a euphoric hopefulness and back to the terror of war within a period of a few months. It is not possible to know how this situation influenced the scores, but it seems probable that it did. Campbell and Stanley (1963) cite war as an example of a threat to external validity in experimental situations. The fact that several respondents mentioned the pending war in Iraq, in a section of the Global-Mindedness Scale provided for comments, suggests that this was probably also true in this research.

Finally, I selected the interviewees and, since the interviews largely defined the scope and content of the

instrument, a possibility for bias was present. To address this problem I selected only interviewees who clearly met stated criteria. Additionally, I asked content validity judges from a variety of academic disciplines, ranging from business to history, to assess the validity of the items.

Since the purpose of the instrument is to assess the student's level of global-mindedness and to correlate that level with a variety of academic and educational experiences, the major assumption of this study is that it is indeed possible to educate for a global perspective (Hanvey, 1976). Hanvey argues that this goal can be achieved through education which, "provides the individual with a realistic perspective on world issues, problems and prospects, and an awareness of the relationships between an individual's enlightened self-interest and the concerns of people everywhere in the world" (Hanvey, 1976, Abstract).

CHAPTER TWO

Phase One

Review of the Literature

The Global-Mindedness Scale is grounded in research from a variety of areas which identify attitudes, beliefs, and behaviors associated with being global-minded. An extensive review of ERIC, PsychLIT and Sociofile abstracts revealed only two references to the term global-mindedness (Barnes & Curlette, 1985; Schmidt, 1975). Consequently, this chapter reviews a broad range of literature in an effort to capture the essence of the construct.

Included in the review is research on: worldmindedness; international understanding and internationalism; feminist scholarship; global perspectives curricula, international exchanges, and cross-cultural contact; the communal spirit as an answer to the individualistic ethic of American society; and, finally, futurism. In the second section of the chapter I review existing empirical measures which relate to global-mindedness and in the final section I present a preliminary conceptual schema delineating the major aspects of global-mindedness derived from the theoretical and empirical literature.

Worldmindedness

Worldmindedness provides a foundation for developing an understanding of some aspects of global-mindedness. It is a term that has many definitions in the literature but for which a single definition has not been developed (Carlson & Widaman, 1988). In his doctoral dissertation entitled, Toward a comprehensive definition of worldmindedness, Glick (1974) identifies nine separate definitions of worldmindedness in the literature. The authors reviewed describe worldmindedness as consisting of certain abilities, as a level of awareness, as a philosophy, and as an attitude. One of the earliest references to the term is in Lentz (1950). Based on his research with college students in 1936 and 1946, he defined world minded people as those who show:

More definite antagonism to war; more hopefulness regarding universal disarmament; more opposition to compulsory military training; less prejudice against peoples of other nations. . .; less antagonism or aversion to Negroes, Chinese and Japanese in various relationships. . .; less partisan enthusiasm toward their own school, community or city as well as nation; less conventional religious feeling; less belief in immortality, missions, and efficacy of church attendance; less rigidity in sex ethics, more feminism and less opposition to divorce; less emphaticness

regarding the virtue of obedience; more "sympathetic" feeling toward the misfit, criminal, the unemployed, etc.; less favorable attitude towards censorship of press, radio and movies; more enthusiasm about the liberal and radical in abstract as well as in a number of concrete issues, such as socialized medicine and industry, revised spelling, the metric system, modern transportation and items of diet and dress. (p. 211)

Lentz's base assumptions were: that the most compelling problem of his time was the advent of nuclear weapons; that the solution to that problem lay in some form of world government; and that the success of world government lay in the development of a sense of "the political solidarity of the human family" (p. 214) and a fuller understanding of world mindedness.

Sampson and Smith (1957) redefined worldmindedness as purely a value orientation which favors a worldview of the problems of humanity, with or without an interest in international affairs. Highly worldminded people view humankind, not a specific nationality, as their primary reference group. Sampson and Smith's instrument, discussed in detail in the next section, contains eight dimensions of worldmindedness: attitudes towards religion, immigration, government, economics, patriotism, race, education, and war. H. P. Smith (1955), utilizing the Worldmindedness Scale developed by Sampson and Smith, expanded the definition of

worldmindedness to include psychological factors such as less masculinity and desire to dominate, but greater impulsiveness, emotional dependence, inclination towards introspection, easygoingness, and orientation towards interpersonal relations. He also maintained that world-minded individuals were more liberal in their political views, much less authoritarian, and viewed democratic ideology more positively than highly nationalistic individuals.

Worldmindedness is often defined in the literature in terms of the kinds of experiences that contribute to it. Extensive research on students who participated in study abroad programs through American Field Service show that participants are more likely to increase in worldmindedness than those who do not study abroad (Kagitcibasi, 1978). It has also been reported that contact with international students makes American students more worldminded (Sharma & Jung, 1985).

Worldmindedness is generally considered to be a sentiment and value orientation that allows a person to go beyond local, regional and national concerns (Der-Karabetian, Shang, & Hsu, 1983). The worldminded person understands the world to be an interconnected system and feels a sense of belonging to a larger human family (Der-Karabetian et al.; Glick, 1974; Kenworthy, 1970; Sampson & Smith, 1957; Silvernail, 1979).

Glick's (1974) definition of the term is comprehensive: "Worldmindedness" is a term of a high abstraction level used to refer to a complex dynamic involving an individual's knowledge base, value structure, and personality. It is a construct intended to facilitate communication in reference to a particular yet complex set of principles by which its holder conducts his life, which generates attitudes, feelings and motivations, as reflected in point of view, allegiances, relationships, disposition and self concept. It is a characterization for the ability or capacity to extend one's self beyond local, regional, and national concerns and affiliations to mankind as a whole, and to find security, membership, and self-esteem within a global context. (p. 177)

Most of the studies on worldmindedness are twenty to thirty years old. The impetus for the research seems to have been largely the experience of World War II and the terror of the threat of nuclear weapons. Almost every study since the mid 1950s has used some version of Sampson and Smith's Worldmindedness Scale, developed in 1957. The Worldmindedness Scale is limited by the values and concerns of the time. Several of its items refer to a world government or an international police force. When the United Nations was chartered in 1945 these were more prominent issues than they are today.

Our understanding of the value of ethnic diversity is also quite different than it was in the mid 1950s. One pro-worldminded statement from the Worldmindedness Scale reads, "It would be a good idea if all the races were to intermarry until there was only one race in the world" (Sampson & Smith, 1957, p. 101). That statement would strike many today as representing the opposite of worldmindedness, somewhere between lacking appreciation for ethnic diversity and advocating genocide. Several of the anti-worldminded statements are overtly racist. In today's college population, the social desirability of responding affirmatively to a statement such as, "Some races ought to be considered naturally less intelligent than ours" (p. 101), would be so low as to make the item not useful. In a recent use of the instrument (Schell, Sherritt, Lewis & Mansfield, 1986) one of the companies asked to complete the instrument filed a complaint with the Ontario Human Rights Commission charging that the instrument was racist.

There has been an assumption inherent in these studies that internationalism and worldmindedness are diametrically opposed to nationalism (A. Der-Karabetian, personal communication, January 20, 1990). This assumption is a weakness that recurs in the literature. There is no research which indicates that a person cannot be both proud of his or her own country and worldminded. Reasoned patriotism and a global world view are not diametrically

opposed (Barnes & Curlette, 1985).

In addition to the above listed concerns, there are two other reasons this research did not utilize the Sampson and Smith scale. First, the variety of different definitions of worldmindedness in the literature, incorporating everything from psychological characteristics (Smith, 1955) to spirituality (Urso, 1983), makes a clear understanding of the term problematic. Secondly, the attitudes, beliefs, and behaviors of a world-minded person in the last years of the twentieth century may be very different than they were post World War II. Certainly the complexity of global issues and the risk that irreparable damage may be done to the planet are greater than they were forty years ago. Rather than rework a term which has no single clear definition and may not fit contemporary needs, I chose to utilize the term global-mindedness, which has not previously been well defined or extensively used.

The scholarship on worldmindedness contributes to an understanding of global-mindedness, however. An orientation towards thinking of oneself as a member of the human family, rather than only as a member of a specific nationality, was incorporated into the Global-Mindedness Scale.

International Understanding/Internationalism

The terms internationalism and international understanding, are also "incomplete synonyms" (Glick, 1974, p. 172) for global-mindedness. Internationalism is

characterized by knowledge, interest and direct involvement in international issues and relations (Der-Karabetian, 1983). Hoerger (1962) stated that students who scored higher on a test of general current events information tended to be more supportive of internationalism. International understanding is defined as involving knowledge and awareness of issues and events of national and international significance, as well as general attitudes that reflect heightened sensibility to international issues, people, and culture (Carlson & Widaman, 1988). Increased international understanding is attributed to students who study abroad (Bochner, 1981; Carlson & Widaman). The goal of global education classes is often stated to be the achievement of international understanding, with both its affective and cognitive dimensions.

Piaget (1951) proposed a theory on the development of international understanding in children in an article published in the UNESCO International Social Sciences Bulletin. His research on Swiss children suggested that they proceed through several stages in developing this worldview.

1. At the earliest stage the child's reality is entirely egocentric. Until about age five, children assume that the attitudes they hold are the only ones possible.

2. By the time a child reaches age eleven a sense of reciprocity begins to develop. At this stage most children

understand the concept of a nation as a distinct entity and the relationship among town, region and state. They know that other countries exist, that residents of other countries have their own nationalistic attachments, and that they have a clear preference for their own country.

3. A full sense of intellectual and ethical reciprocity does not develop until quite late, about mid-adolescence. Piaget said that at this stage the young person has the facility for social awareness and international understanding. He summarized, "The mastery of the concept of the homeland may be interpreted as the culmination of a gradual 'decentration,' correlative with a process of integration which is applied to a succession of even larger units" (p. 571).

Yachimowicz (1988), drawing from Piaget's theory of the development of international understanding in children, hypothesized that the process that a person who studies abroad goes through when adapting to a new culture causes a disturbance in their unconscious ethnocentrism, leading to cognitive and affective decentering and increased levels of international understanding. His results support this hypothesis, revealing a general trend for study abroad participants to desire more peace and cooperation among nations after the sojourn. He also found that participants with prior experience abroad had a greater interest and respect for other cultures prior to the sojourn than did

students without similar experience. A person possessing international understanding, as described by Piaget (1951), has a worldview which is not limited by parochial, nationalistic ideologies. The person who has reached the third stage of reciprocity seems to demonstrate concern for those outside the immediate realm of his or her daily experience. Piaget's definition of international understanding as both a cognitive and affective process was helpful in the development of a concept of global-mindedness. It adds an interesting, psychological perspective to the process by which the individual comes to think in terms larger than his or her immediate realm of experience.

Feminist Scholarship

Feminist scholars also contributed to an understanding of some components of global-mindedness. Gilligan (1982), in her research on the resolution of ethical dilemmas by girls and boys, wrote of a different kind of moral development that is primarily, although not exclusively, associated with women. She said that in the "different voice" of women one can perceive an "ethic of care", a sense of connection with others and a strong tie between relationship and responsibility (p. 173). Aggression, she said, is rooted in the failure of connection. "Male and female voices typically speak of the importance of different truths, the former of the role of separation as it defines

and empowers the self, the latter of the ongoing process of attachment that creates and sustains the human community" (p. 156). DesJardins (1989) described Gilligan's different voice of caring and connection as one that "creates the self, but can also preserve the planet" (p. 145). This concept of being a member of and feeling responsibility for the human community became an important component in developing an understanding of global-mindedness.

DesJardins (1989) was not the only feminist scholar to connect the future of the planet with the adoption of a more female, caring ethic. McHale and Choong (1989) called for the questioning of a world "created in the image of man" (p. 92), which they described as measuring value in almost exclusively quantitative terms and as "increasingly detached from the 'qualitative' human context" (p. 92). They stated that today's complex global problems and the threat they pose to the survival of the planet require that we seek new ways of perceiving ourselves and our world and of approaching our problems. We must, "question the validity of 'man the measure of all things'" (p. 92), for images and language, as embodied in metaphors, have a strong impact on decision making.

McHale and Choong (1989) presented the need for a new metaphor to deal with ongoing changes and future possibilities. This softer, caring approach is inherent in human nature, but is practiced in the main by women. The

"way of women" arises out of the protection and nurturance of life and reflects adaptive characteristics which enable a more ready adjustment to change.

Deeply ingrained in it are patterns of tendencies to nurture rather than destroy, to integrate and share rather than divide and compete, and to solve sets of problems at a time rather than categorize and stratify. The way of women means non-segregational, non-divisive, equal, compassionate, cooperative and interdependent" (p. 93).

The contribution of feminist ideology to the development of a conception of global-mindedness is well summarized by Huston (1989). "The time of either/or is past. Survival will necessitate adopting the feminine traits of collaboration, arbitration, solidarity and caring - the and/and" (p. 45). The issue, she argued, is not a struggle for power between men and women, but a compelling need to unite the two aspects of humanness into a more functional and peaceful whole. "If we are to survive as a species, in harmony with Nature, we must 'feminize' society's values, adopting collaborative modes which take responsibility for the common (rather than individual) good" (Huston, p. 38).

Eisler (1987) said, "All societies are patterned on either a dominator model--in which human hierarchies are ultimately backed up by force or the threat of force--or a partnership model" (p. xix). Eisler symbolized the first by

the Blade, the second, which is "primarily based on the principle of linking rather than ranking," (p. xvii) is symbolized by the Chalice, which represents life and nurturance. The essence of the problem, she said, is that characteristics associated with the Blade are seen as exemplary, thus leading both men and women to equate "true masculinity with violence and dominance" (p. xviii). In our society and others like it, the power to give and to nurture, represented by the Chalice, is undervalued. Eisler argued that, given our sophisticated level of technology, a dominator model of society is inappropriate and dangerous and that an ethic based on the partnership model offers a hopeful alternative.

Clearly the "voice of women," an "ethic of care," and the "partnership model" have a place in the concept of global-mindedness. Women's attitudes are different from men's on many of the issues related to global-mindedness. Research has consistently shown that women are more empathetic to conditions in the Third World (Drake, 1984) and demonstrate higher cross-cultural interest (Carlson & Widaman, 1988). Females are also more likely to have the kinds of experiences that foster global-mindedness since they comprise two-thirds of the students who study abroad (Koester, 1987). As technology has pushed the dominator model of society towards its hazardous limits (Eisler, 1987), it is time now to look to the partnership model which

reflects a spirit of connection and responsibility.

Education

The literature on international education, including both curricular changes implemented within schools and colleges in the United States and the effects of overseas sojourns or contact with people from other countries, also contributed to an understanding of global-mindedness.

Global Perspectives Curricula

Kneip (1985), in his critical review of the history of global education, stated:

There is ample evidence that programs, curricula, and textbooks are ethnocentric and nationalistic in approach; that teachers are inadequately prepared to teach about the interdependence of nations, cultures and systems; that global studies has not had a high priority in school curricula; and that American students have little knowledge of or interest in other places, other cultures or global issues. (p. 10-11)

Throughout the literature on global education there is a general call for changing the curriculum, which, as Ornstein and Ehrlich (1989) point out, actually is a call for changing the entire educational system, thereby transforming society. They claim that since curricula are determined largely at the local level, it will be necessary to change the thinking of large numbers of adults in order to change the schools.

The literature on the development of a global perspectives curriculum can be categorized into eight predominant themes. While these are not all inclusive, nor universally agreed upon, they do share "an ultimate goal of a just, peaceful and tolerant world" (Heater, 1980, p. 39) and emphasize the interrelatedness of all peoples.

Lessen ethnocentrism. This helps children develop positive gender, racial, cultural, class, and individual identities and reduces provincialism and ethnocentrism (Garcia, 1981; Hanvey, 1976; Ramsey, 1987).

Foster identification with the human family. This enables students to see themselves as part of the larger human family and to identify, empathize and relate with individuals from other groups (Garcia, 1981; Lynch, 1989; Ornstein & Ehrlich, 1989; Ramsey, 1987).

Promote support of universal human rights. This promotes the development of a realistic awareness of contemporary society, a sense of social responsibility, and an active concern that extends beyond one's immediate family or group (Ramsey, 1987), and encourages support of universal human rights (Lynch, 1989).

Oppose prejudice and discrimination. This develops a commitment in students to combating prejudice and discrimination (Lynch, 1989; Ornstein & Ehrlich, 1989).

Develop skills for democratic pluralism. This fosters educational and social skills that are needed for children

to become full participants in a democratic, culturally pluralistic society and to cope effectively with global pluralism (Garcia, 1981; Lynch, 1989; Ramsey, 1987).

Develop environmental awareness. This encourages an understanding of the interconnectedness of the global ecosystem (Hanvey, 1976).

Understand the impact of economic systems. This helps students understand economic interdependence and the role, aims and limitations of different economic systems, both within a particular society and internationally (Lynch, 1989). It also introduces the concept of economic world justice (Amara, 1976).

Train educators. It is important to develop a strong network of teacher certification programs that teach strategies which may be used to encourage a global perspective in students (Barnes & Curlette, 1985; Chaniot, 1988; Grossman, 1983; Torney-Purta, 1982; Tucker, 1983).

Barrows et al. (1981), in the extensive Global Understanding Survey, found that the affective component of global understanding consisted of attitudes towards five phenomena: chauvinism, war, world government, international cooperation, and human rights. He and his team of researchers also assessed student interest in global developments and other cultures, and their feelings of kinship with foreign peoples. The formidable knowledge component of the instrument was intended to measure what

should be known at a criterion level or to measure what needs to be known if global situations and processes are to be fully understood. The 101 questions included items on current events, history, and geography. They found that the students' responses in the knowledge and affect domains were correlated, meaning that higher scores on the knowledge section of the instrument indicated that a student would also score higher on the affective measures of global understanding.

The researchers were disappointed to find that there was no appreciable relationship between global knowledge and either foreign language proficiency or extent of formal or informal language study. They did find, however, that there was a moderately positive association between the affective component of global understanding (i. e. attitudes) and foreign language proficiency and study. Not surprisingly, they also found that grade point average consistently correlated at a moderate level with knowledge, associating academic achievement with the knowledge component of global understanding.

The authors also concluded that reading international news regularly (as opposed to electronic sources of information) was consistently related to higher knowledge and affect scores. Barrows and his research team suggested that either this relationship might indicate that news in newspapers is the most informative source, or that students

whose interest and motivations are already high read articles on international topics. While the small number of substantial relationships between educational experiences and global understanding were somewhat disappointing, the researchers said that this disappointment was mitigated by the fact that so few students reported taking classes which included global content.

The researchers also concluded that visiting other countries and spending time outside the United States is related to knowledge, affect, and foreign language variables. They cautioned that, as with the other results, it is difficult to determine whether experience abroad leads to global understanding or if students who already possess a high level of global understanding choose to travel and live abroad.

Related research affirms that attitudes towards other nations and cultures and knowledge of global issues can be significantly impacted by academic experiences (Torney-Purta, 1986). A regression analysis of the results of the Global Understanding Project (Barrows et al., 1981) confirmed that reading the international news predicted high levels of global concern and knowledge and that taking courses in geography and history were positive predictors of knowledge levels (Torney-Purta, 1982).

A follow-up to this survey was conducted by Torney-Purta (1984) to determine whether students who had taken

global education courses or participated in special programs on international topics had higher levels of global awareness or concern. The results show that programs for highly able students and those in which the teachers had received extensive training in teaching international relations are effective in achieving this goal. Similar research reported by Drake (1984) indicates that students enrolled in classes taught by faculty who were enrolled in a Third World Faculty Development Seminar demonstrated a significant increase in empathy for and awareness of conditions in the Third World. Changes in attitude seem to be brought about by exposure to the realities of life in developing countries.

The research generally suggests that there is a correlation between the academic experiences of teachers and their level of global-mindedness (Barnes & Curlette, 1985), and that teachers reflect their beliefs in their classrooms (Shaver, Davis & Helburn, 1979). This evidence underscores the importance of educating the educator, since more global-minded teachers evidently pass on a global perspective to their students.

International Exchange

The literature on international exchange asserts that worldmindedness and international understanding are generalized effects of successful sojourns abroad (Brislin, 1981) and that the development of positive attitudes towards

other countries is directly related to shared personal interests, such as those that can develop through study abroad (Tims & Miller, 1986).

The American Field Service (AFS), which sends thousands of students abroad annually, has compiled extensive documentation on the increased intercultural knowledge and sensitivity that results from the study abroad experience (Hansel, 1986). International awareness, defined as, "an understanding that the world is one community; a capacity to empathize with people in other countries; [and] an appreciation of the common needs and concerns of people of different cultures" (Hansel, p. 16), increased markedly in students who spent a year abroad with AFS. Hansel developed a questionnaire that measures 17 characteristics that returnees had consistently identified as outcomes of their AFS experience such as foreign language appreciation and ability, understanding other cultures, and self-confidence. Each characteristic is illustrated on a behaviorally anchored rating scale, and students were asked to choose which behavior was most like their own. In a second section of the instrument the returnee was asked to indicate to what degree his or her life had changed with respect to each of the 17 categories since living abroad. Hansel's research reveals that the four variables that were most strongly associated with the AFS homestay experience were:

(a) understanding other cultures, (b) awareness and

appreciation of host country and culture, (c) foreign language appreciation and ability, and (d) international awareness.

Carlson and Widaman (1988) studied the differences in attitudinal change that occurred during the junior year of University of California students who studied abroad as compared to those students who did not leave the home campus. The instrument used was adapted from a larger instrument developed by Barrows et al. (1981). Students were asked to think retrospectively and indicate what their position had been on nine issues before they had experienced their junior year abroad. The items included: (a) awareness of problems common to many nations, (b) concern with the problems of third world countries, (c) desire for international peace, etc. Then, on a parallel set of items they were asked to indicate their present stance on the same topics. In a second section of the instrument they were asked to judge the degree of change in their perspective from before their junior year to their senior year on nine items such as (a) negative feelings about foreigners, (b) positive feelings about your own country, (c) critical views of your own country, etc. Despite the essentially identical attitudes of the two groups prior to the study abroad experience, the group who lived abroad for a year showed higher levels of international political concern, cross-cultural interest, and cultural cosmopolitanism at the

end of their international living experience. In addition, the students from the study abroad group reported significantly more positive, yet also more critical, attitudes towards their own country.

The research identifies several factors which make a significant difference in the outcomes of the sojourn experience, including (a) the length of the sojourn, (b) the frequency and quality of contact with the host nationals, (c) the nationality of the sojourner and the type of community he or she is from, (d) the country and size of community in which the sojourn takes place, (e) the activities of the sojourner while in the host country, and (f) the attitudes of the sojourner prior to the experience (Hansel, 1984).

Contact with International Students

Related to the impact of the study abroad experience is research on the attitude change that results from contact between American students and foreign nationals.

Generations of international educators have assumed that contact across cultures results in more positive attitudes and increased understanding (Paige, 1983). Recent research has demonstrated that this is essentially accurate, but that the success of cross-cultural contact is also related to a variety of antecedent characteristics and preconditions.

In their 1985 study, Sharma and Jung found that interaction with international students encouraged a

cosmopolitan world outlook, cultural pluralism, worldmindedness, understanding of one's own culture, support for internationalism, international career aspirations, and political liberalism in American students. The conclusion of the study was that interaction between student cultures does facilitate and encourage an international outlook. This is supported by research on international living centers in which the longer American students lived in a residence hall with international students, the more they reported making friends and understanding, accepting, and respecting individuals of other nationalities, ethnic backgrounds, and religions (Young, 1970).

The results of contacts across cultures are not always positive (Amir, 1969). Preexisting attitudes, such as interest and global orientation, that encourage or inhibit American students from entering into cultural exchanges, affect the outcome of cross-cultural encounters. Contact frequency and contact affective quality (close friendships with foreign students) are positively correlated with supportiveness of international programs, stronger global orientation and, subsequently, a more positive view towards foreign students (Matross, Paige & Hendricks, 1982). Formalized programs which prepare students prior to the contact and are designed to promote positive relationships between persons of different cultures result in more positive cross-cultural contacts (Paige, 1983).

The research on the effects of an internationalized curriculum, study abroad experience and contact with persons from other countries was important to the development of the Global-Mindedness Scale because the literature indicates that many of the attitudes and behaviors the instrument ultimately addresses should correlate with these kinds of experiences. The new instrument draws from the themes found in the literature on globalizing the curriculum since research shows that changes in attitude are brought about by education and exposure to the realities of life in other countries (Drake, 1984). Virtually every theme identified through a review of the literature on global perspectives curriculum also emerged through the qualitative component of the study, including (a) lessening ethnocentrism, (b) fostering identification with the human family, (c) promoting universal human rights, (d) opposing prejudice and discrimination, (e) developing skills for democratic pluralism, (f) encouraging environmental awareness and, (g) developing an understanding of the impact of economic systems. These themes have all been incorporated to some degree into the Global-Mindedness Scale.

Since the research suggests that exposure to multicultural environments generates or expands internationalmindedness (Fulbright, 1976) in its participants, it also seemed appropriate for the Global-Mindedness Scale to address attitudes and behaviors which

are affected by a sojourn abroad or contact with foreign nationals. These included (a) international political concern (Carlson & Widaman, 1988) (b) cultural pluralism (Sharma & Jung, 1985) (c) interest in other cultures (Yachimowicz, 1988), and (d) attitudes towards foreign nationals (Matross, Paige & Hendricks, 1982; Young, 1970).

The Quest for Community

Two additional fields of inquiry provide insight into aspects of global-mindedness--research on the commons problem by social psychologists and a multidisciplinary analysis of the communal traditions of America. The essence of the quest for a communal spirit is reflected in George Herbert Meade's words in 1929, "The selfhood of a community depends upon such organization that common goods do become the ends of individuals of the community" (p. 407).

Hardin (1968), a biologist, coined the phrase the "tragedy of the commons" (p. 162). He saw the inevitable result of an ethic of self-interest as the destruction of "the commons" or our global ecology. In order to save the global commons he proposed strict birth control measures and rigid limits on consumption. In later writings he encouraged the development of "lifeboat ethics" as the only way that the human race might survive overpopulation (Hardin, 1972; Hardin & Baden, 1977). The tragedy of the commons, as defined by Hardin, is that if we each seek only our own good, then we will all perish.

Social psychologists are divided on where the solution to this dilemma lies (Fox, 1985, 1986; Samuelson, Messick, Allison & Beggan, 1986; Stern, 1986). Some of these scholars support the more authoritarian, centralist measures advocated by Hardin (1968), claiming that while forceful, centralized state solutions may seem objectionable to many, it is necessary to judge them within the broader context of the ecological disasters we currently face (Samuelson et al.). They claim that Hardin's (1977) concept of situational ethics is relevant: "The morality of an act is determined by the state of the system at the time the act is performed" (p. 114).

Others ask how the global commons can be maintained in a manner that allows both the individual's sense of independence and their connection to a larger community (Fox, 1985). Fox bases this question on the assumption that human motives can roughly be divided into two categories--autonomy and a need to belong to a community and that psychological health requires a balance between the two. He says that the motives related to autonomy include "agency, individuality, assertiveness, achievement, and freedom;" while those related to a psychological sense of community, a term he borrowed from Sarason (1974), include "communion, interdependence, cooperation, affiliation, intimacy, and belongingness" (p. 50). Fox cites utopian and anarchist thought in formulating his call for the resolution of the

global commons dilemma, "without sacrificing the individual's autonomy and psychological sense of community in the name of survival of the species" (p. 56).

Although most people assume the commune is impossible, the neighborhood dead, and the alienating existence of mass society here to stay, anarchists reasonably suggest as a long-range goal an "organized anarchy"--a decentralized society of federated autonomous communities that would be better able to deal simultaneously with both global and individual problems at their source. Refusing to consider anarchist perspectives and failing to question our own basic assumptions may ultimately lead to tragedies that could otherwise be avoided. (p. 56)

A compelling discussion of the problems associated with individualism, isolation and materialism in American life is found in Bellah, Madsen, Sullivan, Swidler, and Tipton (1985). In their discussion of moral ecology, Bellah et al. reference Toulmin's (1982) example of developments in the field of ecology, which incorporates a number of academic disciplines and is linked to modifications in social practice. Ecology is the study of how all living things are interrelated since they share the earth as a common living environment.

Since human beings are presently having an enormous impact on the planet earth, which is their habitat and

also the habitat of all other living things, ecology as a science has close connections to ecology as a philosophy and social movement.

It is only a step beyond Toulmin's argument to suggest that there is such a thing as "social ecology"--what we have referred to earlier in this book as "moral ecology"--that raises questions related to, and parallel with, natural ecology. Human beings and their societies are deeply interrelated, and the actions we take have enormous ramifications for the lives of others . . . And social ecology is damaged not only by war, genocide, and political repression. It is also damaged by the destruction of subtle ties that bind human beings to one another, leaving them frightened and alone. It has been evident for some time that unless we begin to repair damage to our social ecology, we will destroy ourselves long before natural ecological disaster has time to be realized.

(Bellah et al, p. 284)

Bellah et al. (1985), in their interviews with Americans across the country, found that the "language of individualism," the primary language of American self-understanding, limited the ways in which people thought and conceived of possible solutions to problems. This language of individualism is reinforced in American higher education. The contemporary multiversity, the authors claim, is like,

"a cafeteria in which one acquires discrete bodies of information or useful skills" (p. 279), but where there is no sense of connection between the materials learned and the students' general understanding of the world and the role they might play in it.

Americans have the resources to regain an understanding of community through recapturing their republican and biblical traditions. This can occur through a "reaffirmation of the classic role of education as a way to articulate private aspirations with common meanings" (Bellah et al., 1985, p. 293), so that individuals become both more fully developed people and better citizens of a free society.

They discuss the precarious and spiritually poor lives of Americans whose enormous affluence and material wealth have not brought happiness, nor lessened the threat of nuclear destruction. In the current individualistic and materially-oriented America, they call for Americans to see the story of their lives on earth not as an unflinching success story, but as connected to the suffering as well as the joy of all humankind. In a step beyond the focus of most of their work, the recapturing of American community and a return to some of the civic values upon which the republic was founded, the authors end their last chapter with an expanded call for community to include the global community.

We [Americans] have imagined ourselves a special creation, set apart from other humans. In the late twentieth century, we see that our poverty is as absolute as that of the poorest of nations. We have attempted to deny the human condition in our quest for power after power. It would be well for us to rejoin the human race, to accept our essential poverty as a gift, and to share our material wealth with those in need. (Bellah et al., 1985, p. 296)

The discussion of the commons found in Hardin (1968), Fox (1985) and others reflects the same concerns found in Bellah et al. (1985). If an isolationist, individualist ethic is allowed to prevail, we will be lost. It is in the reestablishment of community values and an overriding philosophy of shared benefits as well as costs that there is hope for the survival and health of local communities, nations, and, ultimately, the global community.

Futurists

A review of futurist literature revealed four value constructs that are part of a future world perspective. These include beliefs concerning (a) economic growth, (b) world economic justice, (c) the conduct of international relations (Silvernail, 1979), and (d) meeting universal human needs (Harman, 1988; Silvernail, 1979). The theme found in Silvernail and throughout other futurist literature is well summarized by Hardin's (1985) statement, "We must

learn to live happily with less than we can dream of" (p. 222).

Our belief in unrestricted economic expansion must give way to a value system which supports selective growth that will encourage the development of energy and resource conservation policies, environmental protections, recycling, and varying economic growth rates for different industries and societies. Adaptive technologies which are based on people, not goods, must be valued in this future world perspective. They are small, labor intensive, do not pollute the environment, and conserve energy and non-renewable resources (Silvernail, 1979).

Harman (1976) suggested that the "growth dilemma" is ultimately resolved by shifting towards a frugal society which is committed to an ecological ethic. Limited economic growth is balanced by the unlimited potential human beings have for productivity and growth. "The resolution to the growth dilemma lies in the movement toward a society that is highly productive in human terms and highly fostering of individual growth and development but frugal in its use of material resources" (p. 136).

Closely related to these beliefs are futurists' thoughts on world economic justice. The acceptance of the unequal distribution of the world's economic and natural resources must be replaced by a fundamental belief in world economic equity. A commitment to this type of equity would

promote greater sharing of economic resources and technical knowledge, provide equal access to the world's natural resources, limit the consumption of industrialized nations and, possibly, provide for a redistribution of the world's economic and natural resources (Silvernail, 1979). Contained within the rhetoric of the demands of the developing world for a new economic order is the proposition that it is time to assure that the most basic needs of the entire family of humankind are met.

Many futurists urge that we need to leave behind the hard, conquest-oriented values traditionally associated with masculinity. The cowboy approach to international relations, in which frontiers are to be conquered and lands tamed, is no longer appropriate. Futurist scholars believe that our future survival will depend upon our ability to replace competition with cooperation--cooperation which promotes disarmament programs, sharing of information, and the creation of international organizations designed to mediate conflict.

A shift from the, "politics of domination and the economics of exploitation" (Eisler, 1987, p. 196) would have radical implications for our ability to meet the basic human needs of all members of the global community. Sivard (1989), in her yearly report, World Military and Social Expenditures, recorded that six times as much public research money goes for research on weapons as for research

on health protection. Every minute 15 children in the world die for want of essential food and inexpensive vaccines, and every minute the world's military machine takes another \$1,900,000 from the public treasury. In the developing world there is one soldier per 240 inhabitants, but only one physician per 1,950. In light of these statistics, it is obvious that implementing the cooperative global society that futurists see as imperative for our survival will require a complete rethinking of priorities.

Harman (1988), drawing from materials developed by United Nations agencies and the International Labor Organization, listed those basic needs shared by all humans. These included fundamental physical needs, education, employment, security, dignity, justice, a sense of accomplishment, affiliation with a group, and the ability to participate in decisions regarding the group's and one's own destiny.

A world futures perspective must incorporate a concern for addressing these basic human needs as well as meeting economic exigencies; developing appropriate technologies; and adopting a cooperative, not competitive, perspective on international relations. Futurist scholars agree that the educational system should play an active role in helping students acquire, "a multi-faceted perspective grounded in a value system that is more supportive of [people] and the world's ecological system" (Silvernail, 1979, p. 7).

Summary of the Review of Literature

Related to Global-Mindedness

This literature review draws from many fields, some apparently distantly related to developing an understanding of global-mindedness. The research, which comes from disciplines as diverse as psychology, cross-cultural research, education, sociology and science, is linked by three conceptual themes. These are: (a) changing metaphors for how we look at our planet and its inhabitants, (b) education as a force for bringing about change, and (c) an evolving understanding of the common good through which basic human rights are assured to all.

The theme of changing metaphors is found in several of the authors cited in this review (Eisler, 1987; Harman, 1988; Huston, 1989; McHale & Choong, 1989; Ornstein & Ehrlich, 1989). Eisler's book, The Chalice and the Blade, focuses on the need for an evolution from a "dominator society" (as symbolized by the Blade) to a "partnership society" (as symbolized by the Chalice).

She wrote:

Women and men all over the world are, for the first time in such large numbers, frontally challenging the male-dominator-female-dominated human relations model that is the foundation of a dominator worldview. At the same time that the idea of the "war of the sexes" is being exposed as a consequence of its model, its

further result of seeing "the other" as "the enemy" is also being challenged. There is, most significantly, a growing awareness that the emerging higher consciousness of our global "partnership" is integrally related to a fundamental reexamination and transformation of the roles of both women and men.

(p. 189)

The new metaphor called for throughout this literature review could well be one of partnership. Americans can no longer view themselves as set apart from the rest of humanity. We must share a concern for global resources and for the living conditions of the rest of humankind. It is appropriate that we, citizens of one of the most powerful, and consumptive societies on earth, re-evaluate our behavior and values in terms of the partnership metaphor.

Terms associated with the old metaphor, or dominator model of society, include division, competition, conquest, and individualism; the new metaphor calls for nurturance, integration, sharing, cooperation, and community. Futurists claim that the adoption of this second metaphor will influence every aspect of our lives, including technology, economics and social relationships.

Other scholars cited in this literature review capture this idea in different language. They discuss the shift as a move from national citizenship to world citizenship (Sampson & Smith, 1957); from a rational world, based on

economic values, which was created, "in the image of man," to a more cooperative, integrative, and nurturing ethic characterized as "the way of women" (McHale & Choong, 1989); from a justice-centered ethic to an ethic of care (Gilligan, 1985); and from individualism to community (Bellah et al., 1985).

The second theme that is implied throughout this literature review is that education is a force for change. What could easily become a literature of despair becomes one of hope when the ability of humans to learn and change is integrated. Bellah et al. (1985) state: "There are voices calling for reaffirmation of the classic role of education as a way to articulate private aspirations with common cultural meanings so that individuals simultaneously become more fully developed people and citizens of a free society" (p. 293). Education is seen as the way to achieve international understanding and peace (Kenworthy, 1970), increase support of internationalism (Hoerger, 1962), and develop a global perspective (Barnes & Curlette, 1985; Barrows et al., 1981; Silvernail, 1979; Torney-Purta, 1986). A recurrent theme is that there is hope if we educate future generations to be concerned for the planet and its inhabitants. As Harman (1976) declared, "Education is our only salvation" (p. 144).

Finally, a search for a new understanding of the common good, in which basic human rights are assured for all, is a

thread that is woven throughout this literature review. The terminology varies, but the sense is the same. How can we develop a philosophy that will lead us to some vision of the common good, enabling the planet and human beings to survive, which will also recognize and cherish the value of the individual? Naisbitt and Aburdene (1990) wrote that the 1990s are characterized by a new respect for the individual that, as an ethical philosophy, elevates the individual to the global level. We are all responsible for preserving the environment, preventing nuclear warfare and eliminating poverty. Huston (1989) calls for the development of collaborative models which strive for the common good. Much of the literature on international education declares its goal to be the support of human rights (Lynch, 1989) and the development of a sense of social responsibility in students (Ramsey, 1987). Bellah et al. (1985) emphasize that despite the focus on and apparent centrality of the individual in American culture, Americans share a tradition, certain "habits of the heart," that link us together in an interdependent society with a common destiny and common ends.

Review of Related Empirical Measures

There have been only a few instruments developed which relate to global-mindedness. The following instruments were a source of items or ideas for items on the Global-Mindedness Scale: (a) Attitudes of World Citizenship

(Lentz, 1950), (b) Worldmindedness Scale (Sampson & Smith, 1957), (c) Culture Shock Inventory (Reddin, 1975), (d) Future World Perspectives Scale (Silvernail, 1979), and (e) The Global Understanding Project (Barrows et al., 1981). The literature on instrumentation recommends that, whenever possible, new instruments should build on existing scales to ensure some continuity between past and future research (Denzin, 1970; Quayhagen, 1989). A sixth scale, The Globalmindedness Scale for Youngsters, is also mentioned, although it was not a source of items for the GMS.

Attitudes of World Citizenship

Lentz (1950) developed a scale to measure Attitudes of World Citizenship. The 66-item scale is comprised of three subscales: world mindedness as related to attitudes towards the United Nations, the atomic bomb and national patriotism; racial or inter-group tolerance; and conservatism-radicalism as related to economics, education, science, religion and other personal preferences. Respondents answer questions either in the affirmative or negative. Some questions offer respondents a list of alternatives and they can choose the most desirable. Reliability was established through corroboration of the data between the first administration in 1936 and the second in 1946. In 80 percent of the cases the items showed a three sigma or greater difference between world citizens and national citizens. World citizens are those who answer affirmatively to the statement, "I would

prefer to be a citizen of the world rather than a citizen of one country." Persons who answered positively to the statement, "World patriotism should be second to national patriotism," were categorized as national citizens.

Worldmindedness Scale

Sampson and Smith, in their 32-item Worldmindedness Scale (1957) make a distinction between their work and other scales (such as Lentz's) that assess international attitudes. International-mindedness, they state, refers to interest in and knowledge of international affairs, frequently measured by level of agreement with factual and topical statements. They define worldmindedness as designating a pure value orientation, or frame of reference, apart from knowledge of, or interest in, international relations. A highly worldminded person adopts a worldview in considering the problems of humanity and holds humankind as their primary reference group rather than one specific nationality.

The eight dimensions measured were attitudes towards, (a) religion, (b) immigration, (c) government, (d) economics, (e) patriotism, (f) race, (g) education, and (h) war. The scaling format was Likert type, with a range from strongly agree (0) to strongly disagree (6). Reliability was determined by both the odd-even and by the test-retest method. The product-moment correlation between the odd and even test items was .89, corrected to .93 by the

Spearman-Brown formula. Test-retest reliability with 33 students over a 28 day period yielded a product-moment correlation of .93. Validity was established through correlation with the Ethnocentrism Scale of the California Public Opinion Scale. The Pearson coefficient was (-.71), indicating a high negative association between worldmindedness and ethnocentrism. There was also a correlation of (-.53) between the Worldmindedness Scale and the Political-Economic Conservatism Scale from the same California study. Validity was also tested by the known group technique of comparing attitude changes of American students who spent a summer in Europe with members of the Quaker International Voluntary Service who also went to Europe.

The Worldmindedness Scale is somewhat limited in its usefulness today because it is clearly dated. Statements concerning racial prejudice and the advisability of not educating other races because they might "take over" would be so socially undesirable and offensive today that responses would probably be greatly affected (Corcoran & Fischer, 1987). The Worldmindedness Scale asks several questions about the establishment of a world government but lacks any kind of knowledge or behavioral component. Finally, worldmindedness and nationalism are seen as polar opposites rather than as viewpoints that can be embraced simultaneously.

Culture Shock Inventory

Reddin's Culture Shock Inventory (1975), designed to acquaint those who decide to work outside their own culture with some of the factors that may cause them to have difficulties, contributed to an understanding of the aspects of global-mindedness related to cultural receptivity and multiplicity. Culture shock was defined as a "psychological disorientation" caused when one misunderstands cues from another culture (Reddin, 1975). The 80-item instrument consists of eight dimensions: (a) lack of Western ethnocentrism is the degree to which the respondent recognizes that a Western system of values may fail to apply in all cultural settings, (b) experience indicates the amount of direct experience the respondent has had with members of other cultures, (c) cognitive flex is the level of openness to new ideas, (d) behavioral flex is a willingness to try new activities, (e) cultural knowledge of specific cultural patterns, (f) cultural knowledge of other cultures in general, (g) cultural behavior reflects ones understanding of the patterns of behavior encountered in other cultures in general, and (h) interpersonal sensitivity indicates the respondent's awareness of verbal and non-verbal behavior in other cultures.

Respondents indicate whether they agree or disagree with each statement, with the total of each column serving as a score. Reliability, established through test-retest

correlation over a two month period, ranged from .57 to .86, with a median correlation of .75. Validity testing was conducted using group comparison for each of the Culture Shock Inventory scales. Most of the significant comparisons related to the subscales for experience, behavioral flex and specific knowledge of other cultures. A second type of validity was found in a correlation matrix indicating relationships among scale scores, based on a sample of 408 examinees. The median correlation was a value of .155.

Future World Perspectives Scale

Silvernail's Future World Perspectives Scale (1979) measures four value constructs that are part of a future world perspective. The constructs reflect a person's belief concerning selective economic growth, adaptive technology, international cooperation, and world economic justice. The 20-item final scale contains a six-point response continuum ranging from strongly agree to strongly disagree. The results of a factor analysis indicated that the twenty items were valid measures of the four relatively independent value constructs. Cronbach's alpha coefficient was used to test the reliability of the scale. The following alpha coefficients were obtained: (a) world economic justice - .81, (b) adaptive technological development - .78, (c) economic growth - .74, and (d) international cooperation - .59. This research reveals important data about the attitudes of teachers related to their global perspective,

but makes no link between those values and teacher behavior. Silvernail indicates that research in the area of the linkages between attitude and behavior would be an appropriate next step in helping educators and students acquire future world perspectives.

Global Understanding Project

The Global Understanding Project (Barrows et al., 1981), which attempted to measure knowledge and attitudes, is the most ambitious instrument to date. This lengthy instrument (230 items) captures many of the concepts which are crucial to global understanding and was a well-researched and documented endeavor. The knowledge component, which consists of 101 questions, was very specific to the political environment of 1979. The questions cluster around thirteen topics including, (a) environment, (b) food, (c) health, (d) population, (e) international monetary and trade arrangements, (f) energy, (g) race and ethnicity, (h) human rights, (i) war and armaments, (j) arts and culture, (k) religious issues, (l) relations among states, and (m) natural geography.

In developing this measure, Educational Testing Service (ETS) staff members used existing and new instruments, and relied on revisions based on multiple analyses of pilot and pretest data. Likert, self-report, semantic differential, and error choice measurements were used.

Sixty-four items which ETS project members considered to be essential to the construct of world understanding were compiled from ten existing Likert scales, (a) The Worldmindedness Scale, (b) The Pacificism Scale, (c) The Internationalism Scale, (d) The Hostility in International Relations Scale, (e) The Nationalism Scale, (f) The Internationalism-Nationalism Scale, (g) The Patriotism Scale, (h) The Attitudes Towards Patriotism Scale, (i) The Peterson War Scale, and (j) The Attitudes Towards World Affairs Scale (Barrows et al., 1981).

Extensive development work and the national study itself indicated that the affective component of Global Understanding consisted of six dimensions, (a) chauvinism, (b) attitude toward world government, (c) attitude toward cooperation, (d) attitude toward war, (e) attitude toward human rights, and (f) concern. Four separate instruments employing distinct measurement methods were developed to measure these affective areas.

The portion of the instrument using a Likert-type scale had a range of strongly agree (1) to strongly disagree (5). Internal consistency reliability was obtained and, through factor analysis, acceptable validity was established. Twenty-seven of the 32 items were assigned to factors unambiguously by their correlations which ranged from .31 to .81. The remaining five items were assigned to scales according to two of three correlations with a single factor.

Globalmindedness Scale for Youngsters

The only scale that actually uses the term globalmindedness is the Globalmindedness Scale for Youngsters (Schmidt, 1975), which was developed as part of a doctoral dissertation. The 42-item scale was designed to measure both the knowledge and attitudes, called global orientations, of fourth, fifth and sixth grade children. The dimensions it includes are (a) chauvinism, (b) globalmindedness, (c) disarmament, and (d) cooperation. A Likert scale is used, with a range of completely agree (1) to completely disagree (5). Reliability and validity information was not provided.

Summary of Related Empirical Measures

While there are several instruments that address attitudes that may be a part of global-mindedness, there is not a single instrument that captures the depth and breadth of the construct. Several of the early instruments construe global-mindedness and nationalism as diametrically opposed. The literature suggests that this dichotomy is false. There is little attention paid to behaviors in the instruments reviewed, though the literature calls for the relationships between values, attitudes and behavior to be explored (Silvernail, 1979). In addition, many of the instruments are dated and could not be used with college students today. Only The Global Understanding Project (Barrows et al., 1981) was intended to evaluate the outcome of global education.

Synthesis

The literature reviewed in this chapter covers a much broader spectrum than that which is usually found in discussions of the development of international attitudes, worldmindedness or internationalism. This breadth reflects an attempt to go beyond the existing definitions and our current understanding of the outcomes associated with global education and international experience. The Global-Mindedness Scale draws from: (a) research and existing instruments for the measurement of worldmindedness and global understanding; (b) the concept of international understanding; (c) the work of feminist scholars; (d) the literature on internationalized education, including both curricular changes and the effects of overseas sojourns; (e) the work of social psychologists, sociologists and others on the critical nature of balancing individualism and a sense of community and communal responsibility; and, finally, (f) futurist literature.

Three themes evolved from this review. First, in order to survive, we must change the metaphors by which we live. Eisler's (1987) model served as a central theme, with its focus on the move from a dominator to a partnership society. The second theme was a hopeful one: through education, change can occur. Future generations can be educated to be actively concerned about the planet and its inhabitants. Finally, there was a recurrent theme of a striving for the

common good. The literature reviewed suggests that a vision of the common good which also recognizes the rights of individuals can be achieved. The existing empirical measures address some aspects of these themes, but a comprehensive instrument does not exist. It is the purpose of this research to develop such an instrument.

Preliminary Conceptual Schema

To develop a preliminary conceptual schema, the "critical attributes" (Waltz, Strickland & Lenz, 1984, p. 28) of global-mindedness which emerged from the literature review and from an analysis of existing instruments were sorted into categories. In order to understand the dimensions of a construct and its characteristics, the process of mapping is used to logically organize the data gathered. "The map is essentially a tool that organizes the meaning of the concept into a usable framework and helps to assure that critical elements are included in the definition" (Waltz, Strickland & Lenz, p. 30). The map, which served as a basis for the development of a theoretical definition of global-mindedness, became more exact as the concept was operationalized during Phase Four.

To synthesize the theoretical literature, individual words and word groups were written on 3 X 5 cards and sorted through in an attempt to find logical groupings of concepts. The ten preliminary dimensions that were identified were:

(a) community orientation, (b) ethic of responsibility, (c) sense of connectedness, (d) human rights perspective, (e) peace orientation, (f) ecological worldview, (g) cross-cultural perspective, (h) interest in world affairs, (i) opposition to prejudice and, (j) futurist orientation. Table 2.1 outlines these ten groupings and associated key terms derived from the theoretical literature. Table 2.2 provides substantiation from the literature for this taxonomy by citing the authors from whom the information was drawn.

The next step involved a similar process with information derived from the empirical literature. As with the theoretical data, the process of mapping revealed five major themes measured by existing empirical instruments. These preliminary measured dimensions of global-mindedness were: (a) personal attributes, (b) political attitudes, (c) concern, (d) knowledge, and (e) prejudice.

Table 2.3 presents these emerged categories of the construct. The category of "personal attributes" includes all those measured items related to personality or that could be considered personal characteristics. "Political attitudes" refers to the numerous instruments and subscales that assess attitudes towards governmental actions and consequences. Attitudes towards world government, war, and human rights were included. "Concern," is drawn directly from Barrows et al. (1981). They used this general category

Table 2.1

Preliminary Dimensions of Global-MindednessFrom the Review of the Literature

<u>Community Orientation</u>	<u>Ecological Worldview</u>
Affiliation, cooperation	Environmental concern
Interdependence	Interconnectedness of
Belonging	global ecosystem
Common good	Energy and resource
	conservation
	Recycling
<u>Ethic of Responsibility</u>	<u>Cross-Cultural Perspective</u>
Collaboration, care	Multiple loyalties
Social responsibility	Sensitive to other cultures
Reciprocity	Cross-cultural interest
Concern for well-being of	Cultural cosmopolitan
humanity	
<u>Sense of Connectedness</u>	<u>Interest in World Affairs</u>
Partnership	Knowledge, interest and
Unity of human species	involvement in
Identify with human family	international issues
Empathize with people in	International political
other countries	concern
Worldview of problems of	Seeks out international
humanity	news
<u>Human Rights Perspective</u>	<u>Opposition to Prejudice</u>
Liberty & justice for all	Opposition to chauvinism
Meet universal human needs	Opposition to
Active concern for	discrimination
universal human rights	Decreased ethnocentrism
<u>Peace Orientation</u>	<u>Futurist Orientation</u>
International Cooperation	Selective economic growth
Opposition to war	World economic justice
Universal disarmament	Cooperative strategies
Acts to bring about world	Meet universal human needs
peace	

Table 2.2

Verification from the Literature Review of
Preliminary Dimensions of Global-Mindedness

Community Orientation

Bellah et al., 1985
 Der Karabetian,
 Eisler, 1987
 Fox, 1985
 Hansel, 1986
 Huston, 1989
 McHale & Choong, 1989
 Muessig & Gilliom, 1981

Ethic of Responsibility

Eisler, 1987
 Gilligan, 1982
 Kenworthy, 1970
 Muessig & Gilliom, 1981
 Piaget, 1951
 Ramsey, 1987
 Yachimowicz, 1988

Sense of Connectedness

Eisler, 1987
 Garcia, 1981
 Gilligan, 1982
 Hansel, 1986
 Lynch, 1989
 Muessig & Gilliom, 1981
 Ornstein & Ehrlich, 1989
 Ramsey, 1987
 Sampson & Smith, 1957

Human Rights Perspective

Barrows et al., 1981
 Kenworthy, 1970
 Muessig & Gilliom, 1981
 Lynch, 1989

Peace Orientation

Barrows et al., 1981
 Kenworthy, 1970
 Lentz, 1950

Ecological Worldview

Hardin, 1976
 Muessig & Gilliom, 1981
 Silvernail, 1979

Cross-Cultural Perspective

Carlson & Widaman, 1988
 Hansel, 1986
 Muessig & Gilliom, 1981

Interest in World Affairs

Barrows et al., 1981
 Carlson & Widaman, 1988
 Der-Karabetian, 1983
 Kenworthy, 1970

Opposition to Prejudice

Garcia, 1981
 Lentz, 1950
 Lynch, 1989
 Ornstein & Ehrlich, 1989
 Ramsey, 1987

Futurist Orientation

Eisler, 1987
 Harman, 1976, 1988
 Silvernail, 1979

Table 2.3**Preliminary Dimensions of Global-Mindedness****From the Review of Empirical Measures**

<u>Personal Attributes</u>	<u>Knowledge</u>
Adaptability	Knowledge of:
Flexibility	International relations
Openness	Cultural differences
Receptiveness	Economic systems
Sensitivity	Technological capabilities
<u>Political Attitudes</u>	Geography
Attitudes towards:	Governmental systems
Human rights	<u>Prejudice</u>
War	Chauvinism
Disarmament	Ethnocentrism
World government	Racism
Immigration	Excessive patriotism
<u>Concern</u>	
Kinship	
Empathy with people in other nations	
Interest in inter- national developments	

to incorporate a feeling of kinship for people around the world, empathy for people in other nations, and interest in international developments. These items were found only in the work of Barrows et al. and did not reflect themes found in other instruments. "Knowledge", the fourth broad category, incorporates knowledge of political systems of other countries, international relations and awareness of cultural norms in other parts of the world. Finally, "prejudice" includes the variety of forms that irrational dislike of those different from oneself may take, including ethnocentrism, racial prejudice and chauvinism.

Figure 2.1 is a preliminary conceptual schema (Quayhagen & Quayhagen, 1988; Quayhagen, 1989) which outlines the measured theoretical dimensions of global-mindedness and a synthesis of the unmeasured theoretical dimensions. This conceptual model provided direction for further development of the Global-Mindedness Scale. The third, and final, source of information for developing an understanding of global-mindedness was the qualitative study, described in Chapter Three.

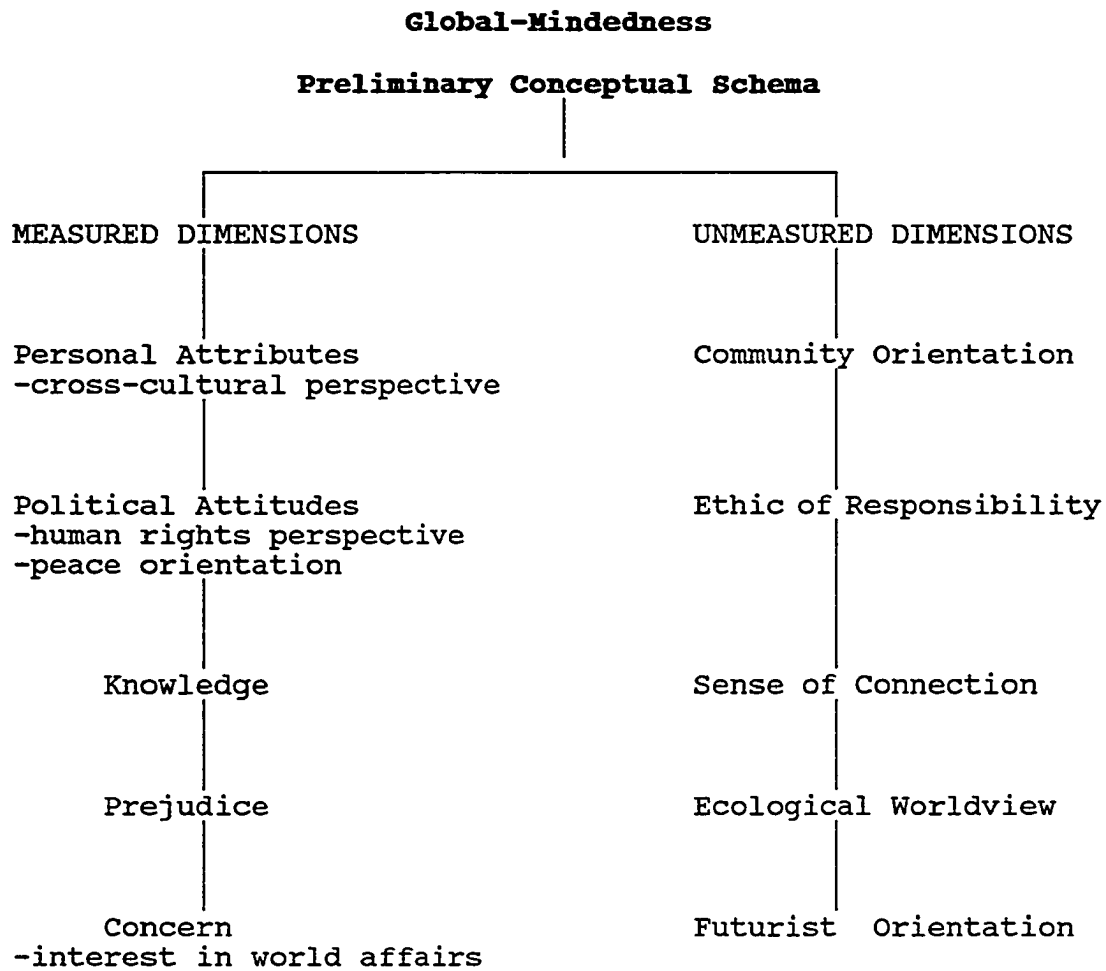


Figure 2.1 Preliminary conceptual schema

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

The objective of this research is to develop a valid and reliable instrument to measure the construct of global-mindedness. Global-minded people were preliminarily defined as those who possess an ecological world view, believe in the unity of the human species and the interdependence of humanity, have multiple loyalties and are futurists. The researcher, after thoroughly reviewing existing empirical instruments and ascertaining that there was not one available to measure this construct, conducted a review of literature from related areas of study such as cross-cultural communication, political psychology, and global education. This review was designed to draw out themes that would be pertinent to an instrument designed to measure global-mindedness. Upon completion of the review of existing empirical instruments and the review of related literature, the research proceeded to Phase 2 of the Quayhagen and Quayhagen (1988) model.

Phase Two

The second phase of the instrument development process was a naturalistic study (Guba & Lincoln, 1983) in which

interviews were conducted with a selected sample of people in order to elicit new or emergent dimensions of the construct. Each of the interviewees had demonstrated a commitment to, or an understanding of global-mindedness.

In the inductive phase, a qualitative pilot study is conducted to obtain ecologically valid meanings of the concept in order to emerge new dimensions for further expanding the conceptual realm. Ideally a professional or demographic mix of key informants is sought (data triangulation) in order to maximize the variability of potential dimensions and further clarify the concept.

(Quayhagen & Quayhagen, 1988)

Methodology

Naturalistic Inquiry

Naturalistic inquiry . . . offers a contextual relevance and richness that is unmatched; it displays sensitivity to process virtually excluded in paradigms stressing control and experimentation; it is driven by theory grounded in the data--the naturalist does not search for data that fit a theory but develops a theory to explain the data. Finally, naturalistic approaches take full advantage of the not inconsiderable power of the human-as-instrument, providing a more than adequate trade-off for the presumably more objective approach that characterizes rationalistic inquiry. (Guba & Lincoln, 1983, p. 313)

Guba and Lincoln (1983) describe this approach as a legitimate, orderly form of field research that takes into account: (a) individuals, their experiences, and their perceptions; (b) sampling techniques which do not rely on randomization, but that are quite purposeful and; (c) interpersonal interactions such as interviews. In the naturalistic method, with its preference for grounded theory and emergent design, the human interviewer or observer is the instrument of choice. Sampling is intended to maximize the range of information collected to provide stringent conditions for theory grounding. Sampling can stop when no additional categories emerge from the interviews or, as suggested by Quayhagen (1989), two interviews beyond the saturation point at which no new data are being obtained.

Sample and Procedure

The researcher contacted potential interviewees after securing approval for the study from the University of San Diego Committee on Protection of Human Subjects (Appendix A). Interviewees were identified through personal contacts and through regional and national professional associations which focused on cross-cultural concerns. The generalizability of data collected in the naturalistic paradigm relies on "thick description" (Guba & Lincoln, 1983). To achieve this, the researcher recruited interviewees from a wide variety of backgrounds, locations, ages, and life experiences. Some were selected due to a

combination of their personal background and academic credentials in the areas of cross-cultural research or world-mindedness. Many were originally from countries other than the United States but had immigrated here. Others were selected for their compelling vision and commitment to help those less fortunate than themselves. I judged that a person who was willing to make significant personal sacrifices for people in other countries was living the vision of global-mindedness.

The final sample consisted of fourteen persons from several different national backgrounds who ranged in age from 22 to 60. Subjects were contacted by telephone and, after an explanation of the research project, were asked to participate in an informal interview. Several of the interviews were conducted by telephone since the sample included people from six different states. Table 3.1 outlines the countries of birth, professions and other involvements of the interviewees. The sample interviewed included nine different nationalities, although all persons interviewed were permanent United States residents.

The Interviewees

True to the promise of qualitative research, the interviews lent richness and depth to the theoretical and empirical data. A brief overview of the professional affiliations, personal history, and commitments of some of the subjects demonstrates why this was so.

Table 3.1**Characteristics of Interviewees**

Total number of persons interviewed: 14

Sex

Male	7	Female	7
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Career

Educator	3	Business	3
Intercultural expert	6	Psychologist	3
Health professional	2	Student	3
Intercultural trainer	4		

Related Characteristics / Experience

Extensive experience outside country of birth (four years or more)	11	Political activist	5
Born outside U.S.	8	Multicultural family:	5
Involved in international business	5	Member, Society for Intercultural Educators Trainers & Researchers	4
Peace Corps	2		
Foreign service	1		

Country of Birth

Chile (1)	India (1)	Palestine (1)
Colombia (1)	Lebanon (1)	Taiwan (1)
Greece (1)	Mexico (1)	United States (6)

Note. Many interviewees fell into more than one category so the total number of persons in some categories exceeds 14.

A 22 year old UCSD student was among the first interviewees. He had grown up in poverty in Bogota, Colombia with his mother until the age of nine, and then lived in an orphanage until the age of thirteen. At that time he was adopted by an American family. He was, at the time of our interview, a senior majoring in engineering and a student leader in many social and political organizations. He had taken it upon himself to educate his peers about conditions in the Third World, had developed a film and lecture series on these issues, and was actively involved in building a relationship between the University and an orphanage in Tecate, Mexico. The two other students interviewed were also involved in the education of their contemporaries and foresaw that they would continue in this kind of activity after their graduation.

The chairperson of the Behavioral Science Department at a small, private college in Southern California was also willing to share his ideas on global-mindedness. As a political psychologist who was actively researching world-mindedness, his input was particularly valuable. He was in the process of assessing worldmindedness in several countries around the world and had also done extensive work in the area of ethnic-national identity. He was not American by birth, but was a product of the multilingual culture of Lebanon.

A Chilean woman, currently an educator at a San Diego

university, described herself as being involved with political issues, human rights, and issues of justice, racial equity, and persecution. She explained, "I was truly involved in the events surrounding the Allende government. Having been censored by the Politat and left the country, having seen firsthand the oppression and deprivation of human rights. This is very real for me."

A professor of communications at a university in Arizona, who had his undergraduates do a research project which utilized the Worldmindedness Scale developed by Sampson & Smith (1957), explained the global-mindedness inherent in Hindu philosophy. "The universal family doctrine--they believe that the whole universe is one large family. When you begin to view [it] that way, then other countries are members of that family and since you wouldn't think of hurting somebody who was a member of your own family, you won't think of waging war with other nations or of hurting them." He received his Bachelor's and Master's degrees in his home country of India and his doctoral degree in the United States in the area of intercultural education. He has published widely in the field and is prominent in the American global education movement.

Another participant, currently a private school vice principal in Southern California, is also very involved in the global awareness movement in education. He worked overseas for five years as a teacher and as an administrator

and currently educates teachers on how to internationalize their classrooms.

A school psychologist from Connecticut described herself as a "global nomad," who had lived in Brazil, England, and Mexico before moving to the country of her citizenship, the United States, when she was 17. She said, "I have a keen awareness of being a part of the globe because I grew up in different parts of [it]." She attended international schools during her childhood, worked with the Peace Corps, has conducted research in Colombia, and is involved in cross-cultural education as a trainer. She currently works with Neighbor to Neighbor and Witness for Peace.

A professor of international communications at a major university in Washington, DC, who had lived in numerous countries including Mexico, Iran, Kenya, and Sri Lanka, also agreed to be interviewed. He described the development of his own global-mindedness as a convergence of his academic preparation in psychology, his involvement in the civil rights movement, his international experience, and various personal experiences. He is widely published and recognized as an expert in the field of cross-cultural communication.

The executive director of a major international intercultural training and research organization brought a particular richness to the interviews. She is from Mexico and holds an Master's degree in social psychology and a

doctoral degree in social epidemiology. She said, "The unit to be concerned with is the planet and the species; there's that sense. . . of relativity and perspective through history and through time that allows for delight in the richness of the diversity and awareness of the tenuousness of the balance."

Other interviewees included a nutritionist with a Master's degree in public health and a doctoral degree in education who is very involved in a pediatric hospital in Mexico; a professional in the travel industry; the owner of a cross-cultural training business who has just published a book on crossing cultures; and a consultant to numerous multinational corporations who provides training on meeting the needs of an international work force. As the interviews evolved, each person lent his or her perspective and expertise to the process of understanding global-mindedness.

The Interviews

The procedure for developing the unstructured interview schedule followed the outline provided by Waltz, Strickland and Lenz (1984). The model stated that the researcher should: (a) determine the information to be sought; (b) develop the question or item; (c) determine the sequence for the questions; (d) subject the questions to review; (e) draft the interview schedule, including an introductory statement; and, (f) administer and then transcribe the interview. The step of training coders and coding the

interviews, usually included in the schema, was omitted since I was the only one who performed those procedures.

An interview guide (Appendix B) was developed which ensured that each of the general topic areas was covered, but did not restrain me to the exact wording and order of the questions. The assumption underlying this interview procedure was that, if the meaning of a question was to be standardized, it must be formulated in words familiar to the person being interviewed (Denzin, 1970). For example, I addressed questions less formally to student interviewees than to faculty members.

Content Analysis

The interviews were analyzed using a modified version of the content analysis procedure described by Waltz, Strickland and Lenz (1984). This process allows the researcher to identify, interpret and generally better understand the dimensions of the construct through analysis of interview transcriptions.

Definition of the data to be examined. In this research the transcribed interviews were the "universe of content" (Waltz, Strickland & Lenz, 1984) to be analyzed. Quayhagen (1989) advised that the interviewer transcribe "authentic verbalizations," or the interviewee's actual words, in order to provide "ecological validity" to the study.

Identification of the concepts to be measured. At this

stage the researcher asks what he or she wants to learn from the interviews. The information gathered in the review of the literature and related empirical instruments provided a starting point, but the hope was that the interviews would reveal additional dimensions of global-mindedness. While the literature reflected aspects of the construct such as global concern and opposition to prejudice, new categories, including cultural pluralist and interconnectedness of humanity emerged from the interviews.

Selection of the unit of analysis. Words, word groups and sentences or themes were analyzed in this research.

Development of a sampling plan. Each of the fourteen interviews were fully transcribed in order to find patterns or themes that might emerge.

Development of a method for categorizing the data. This process drew first from the available theoretical and empirical data which suggested the divisions into which the data might fall and then from the transcribed interviews. This provided "the categorical scheme [which] links the theoretical or conceptual background of the investigation with the data and [provided] the basis for making inferences and drawing conclusions" (Waltz, Strickland and Lenz, 1984, p. 260).

Performance of the content analysis. In this sixth step the content of the of the interviews was categorized into clusters. Guba and Lincoln (1981), drawing from the

work of Holsti (1969), noted the following canons of good category or taxonomic construction. Categories must be (a) exhaustive, (b) mutually exclusive, (c) independent, (d) derived from a single classification principle, and finally, must (e) reflect the purposes of the research. I examined the transcribed interviews for emergent categories and noted the frequency with which key words, phrases and themes appeared throughout the interviews. "Concern for others," "responsibility," and "activism" were words and phrases that surfaced repeatedly. The content analysis was not, however, approached as a strictly quantitative technique as the frequency of a statement does not necessarily relate to its importance (Guba & Lincoln, 1981).

When asked what global-mindedness was, responses included: "a value system that focuses on an identification with and valuing of humanity as a whole," and "an awareness of yourself and your group or community and of your function within an extended community." Other respondents said global-minded people, "would demonstrate concern for the entire world. . . have got to be involved. . . can think in multiple perspectives. . . have a better sense of longterm consequences." When asked what behaviors one might expect from a global-minded person, they answered: "involvement in human rights. . . volunteer work. . . the environmental movement. . . Habitat for Humanity"; "they'd be better listeners, they'd read more, seek out information more";

"global-minded people would be willing to try new things . . . they're fairly outgoing and curious. . . they actually interact somehow with other people."

Using these types of phrases as a reference, the analysis process was done repeatedly to identify words or themes that related to global-mindedness. The recorded interviews were transcribed and then words and word groups were written on 3 X 5 cards and placed in preliminary groupings. Smith (1985) suggests that writing each concept on a card and then sorting them into potential categories is an effective way to examine the relationships among concepts derived from a literature search and interviews.

Guba and Lincoln (1981) recommend cross-referencing the card to the interview so that the context of the item can later be reassessed since it might prove of interest to observe whether certain kinds of information tended to come from similar or different informants. Color coding the 3 X 5 cards did prove helpful in understanding and analyzing the data. In the beginning stages of this process there were 46 phrase and word groupings. Frequency counts and recycling through the process reduced this number first to 17 and then to 11 subcategories.

In this way the data were categorized into clusters that appeared to form distinct dimensions. These initial content categories were reviewed periodically and changed as new groupings emerged from the data. The preliminary

emergent dimensions were: (a) personal attributes, (b) unity of humanity, (c) cultural pluralism, (d) opposition to prejudice, (e) activism, (f) environmental concern, (g) interconnectedness of the global community, (h) responsibility/care, (i) additional language ability, (j) knowledge/interest in world affairs, and (k) futurist orientation. Table 3.2 presents these categories and examples of quotes from the interviews.

Phase Three

Conceptual Schema

The third stage of the retroductive triangulation methodology involved the development of a conceptual schema which merged the information gathered from the interviews with the review of the literature and existing instruments (Quayhagen, 1989; Quayhagen & Quayhagen, 1988). Waltz, Strickland & Lenz (1984) said that, in a conceptual framework or model, "concepts are identified, defined and linked by broad generalizations [which provide an] orienting scheme or worldview" for the development of theories (p. 20). Since a large portion of the data involved in the development of the final conceptual schema was qualitative, a naturalistic approach to the data was adopted for the analysis (Guba & Lincoln, 1981). Elements of mapping used in the development of the preliminary conceptual schema were

Table 3.2**Preliminary Emerged Dimensions Quoted from Interviews****Personal Attributes**

Open to variation
 Open-minded
 Willingness to hear 'the other'
 Inquisitive
 Beliefs are more flexible
 Tolerant of ambiguity
 Willing to change

Unity of Humanity

Thinking of oneself as a world citizen
 The unit to be concerned with is the planet and the species
 Unity of humanity
 Global belonging

Cultural Pluralist

Enjoy and are challenged by crossing cultures
 Understand how culture biases worldview
 Cultural and religious pluralism
 Awareness and appreciation for diversity of cultures
 Live in a culture other than your own
 Critical experience outside your own culture"

Opposition to Prejudice

Not ethnocentric
 Absence of prejudice

Activism

Global-minded people act""they do something about it"
 Intense level of activism
 They want to get involved
 Financial contributions to causes
 It's not global education unless it gets action
 Abandoning the belief that they can't have an impact

Table 3.2 (Cont'd.)

Environmental Concern

What is good for the world is good for me
 You want to protect the globe
 Involvement in environmental issues and recycling

Interconnectedness of the Global Community

A sense of the interrelatedness of cultures
 I feel a sense of kinship for women all over the world
 Interconnectedness

Responsibility / Care

Universal concern for humanity
 It's that sort of responsibility you feel
 Duties that come with awareness
 Concern for the welfare of others
 If you hear such and such is going on in another part of the
 world, a tragedy or a disaster, you really feel for those
 people

Additional Language Ability

People who are monolingual can't make the switches
 internally to other frames of reference or world views
 Through a second language you empathize
 When you are familiar with a language you understand what is
 important to a people
 It gives you great insight into a culture

Education

Pay attention to world news
 They're excited to know what's going on in the world
 They would read up on areas of interest
 Read international news in the paper every day
 Good education in geography and history

Futurist

Being able to envision what's to come
 A global-minded person has a better sense of comparing
 immediate and short, versus long-term consequences
 The global awareness movement is well-married to the
 futurist movement
 Realize ramifications

retained, but then enhanced through a more qualitative approach.

Guba and Lincoln (1981) suggested that the first step the qualitative researcher should take in establishing categories of data is to look for repeated themes in the interviews, documents and other data sources. The researcher should then systematically review these categories to ensure that there is, "internal homogeneity (and) external heterogeneity" (p. 93) between categories. Categories then must be prioritized since the number of classifications derived is likely to be too large to manage. They said that the number of times the category appears in the data, the credibility of the source, the uniqueness of a category, and the researcher's informed judgment about the importance of a category may all be used to reduce their number.

Many of the categories derived from the review of the literature reflected similar themes to those found in the interviews (Table 3.3). Community Orientation, a theme pulled from the review of the literature, reflected ideas similar to the dimension of Interconnectedness of the Global Community which had surfaced through the interview process. Similarly, Sense of Connectedness seemed to reflect both the theme of Interconnectedness and the Unity of Humanity. These themes were quite similar and were pulled together as Interconnectedness of Humanity.

Table 3.3

Preliminary Dimensions of Global-Mindedness Derived from the Literature Review and the Interviews

GLOBAL-MINDEDNESS	THEORETICAL LITERATURE	QUALITATIVE INTERVIEWS
INTERCONNECTEDNESS OF HUMANITY	Community orientation	Interconnectedness of global community
	Sense of connectedness	Unity of humanity
CULTURAL PLURALIST	Cross-cultural perspective	Cultural pluralist
	Opposition to prejudice	Opposition to prejudice
ETHIC OF CARE/ RESPONSIBILITY	Ethic of responsibility	Responsibility/ Care
FUTURIST ORIENTATION	Futurist orientation	Futurist orientation
	Ecological worldview	Environmental concern
GLOBAL-MINDED BEHAVIORS	Interest in world affairs	Knowledge
	Human rights perspective	Activism
	Peace orientation	Activism
		Additional language ability

Cultural Pluralist seemed to subsume Cross-Cultural Perspective and Opposition to Prejudice. The Personal Attributes dimension was also included here since most of the characteristics reflected the ability to communicate across cultures effectively (e. g., listening skills, open-mindedness, flexibility, etc.). Ethic of Responsibility and the category of Responsibility/Care were a clear match and were retained as Ethic of Responsibility/Care in the GMS. Both the literature reviewed and the interviews reflected that a Futurist Orientation was an important aspect of global-mindedness.

Human Rights Perspective, Peace Orientation, and a general commitment to Activism, emerged as important themes during the interviews. These areas were merged with Interest in World Affairs and Knowledge to form the category of Global-Minded Behaviors. Interviewees generally agreed that Additional Language Ability was important to developing global-mindedness, but since this was not a recurrent theme in the literature review, I decided that Language Ability would be explored as a correlate of global-mindedness, not as one of its primary factors.

Two persons familiar with the study and knowledgeable in the field of global education were asked to examine and to categorize the elements of the emerged preliminary dimensions from the theoretical, empirical and data triangulations. Guba and Lincoln (1981) suggest that an

informed judge ought to be able to review the data collected and affirm that the categories determined by the researcher make sense and that the data have been appropriately assigned. The observations and opinions of these two individuals became another information source in the process of developing categories of data which appeared to be both internally consistent and distinct from one another.

This process resulted in five dimensions on which to base the development of the Global-Mindedness Scale. The terms used to name the preliminary emergent dimensions were (a) Interconnectedness of Humanity, (b) Cultural Pluralist, (c) Ethic of Responsibility/Care, (d) Futurist Orientation, and (e) Global-Minded Behaviors. Table 3.3 presents the categories derived from the theoretical literature and the interviews, and the dimensions of the final instrument.

The process of category development culminates in a theoretical definition of the construct and its dimensions (Quayhagen, 1989). This allows the researcher to translate an informal, personal definition of a concept into a, "theoretical definition which is precise, understandable to others, and appropriate for the context in which the term will be used" (Waltz, Strickland & Lenz, 1984, p. 25). Table 3.4 outlines the preliminary theoretical definition of global-mindedness which was derived from triangulation of data from the literature review, existing instruments and interviews.

Table 3.4

Preliminary Definition of Global-MindednessGLOBAL-MINDEDNESS

Global-mindedness is a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility to its members.

EMERGENT DIMENSIONS OF THE DEFINITION

Interconnectedness of humanity Global-minded people are aware of the **interrelatedness of all nations and peoples**, recognize the **complexity of these relationships**, and have a sense of **global belonging and kinship** with people all over the world.

Cultural pluralism Global-minded people **appreciate and value the diversity of cultures** in the world and are interested in learning more about them.

Ethic of responsibility and care Global-minded people exhibit a **personal concern** for people in all parts of the world which manifests itself in a sense of **moral responsibility** for other and a commitment to the values of a **community**.

Futurist orientation Global-minded people are aware of the **long-term consequences and ramifications** of behavior on the environment and on global society, focus on **cooperative international relations**, and believe in **appropriate technology** and **selective economic growth**.

Global-Minded Behaviors People who are global-minded **reflect their values and attitudes through their behaviors**. These might include volunteering for or contributing money to organizations which focus on improving world conditions; actively seeking out information on current events, political situations and other cultures; and working on environmental issues. There is an implicit belief that the actions of one person can begin to make a difference.

Phase Four

Assessment Protocol

An assessment protocol identifies existing instruments, dimensions they measure, author, number of items and subscales, reliability and validity information, and unmeasured dimensions of the construct under study (Dempster, 1990). Table 3.5 presents this information in abbreviated format, with full details on each instrument's psychometric properties provided in Chapter Two.

This assessment protocol provided the framework for operationalizing the construct of global-mindedness. The preliminary definition (Table 3.4) served to clarify the meaning of key aspects of global-mindedness; operationalization of that definition involved moving from an abstract understanding of the concept to a delineation of how it would be measured (Waltz, Strickland & Lenz, 1984).

Phase Five

Quayhagen and Quayhagen's (1988) fifth stage in the retroductive triangulation process involves the actual writing of items and establishing a scaling format and scoring procedure.

Item Identification

Items to be included in the initial draft of the GMS were drawn from the interviews, the review of the theoretical literature and existing instruments. Nunnally (1978) recommends that the researcher develop at least one-

Table 3.5

Assessment Protocol for Operationalizing Global-Mindedness

Dimensions	Instrument / Reference
I. MEASURED	
Opposition to prejudice	
-Racial/intergroup tolerance	Attitudes of World Citizenship (Lenz, 1951)
-Racial attitudes	Worldmindedness Scale (Sampson & Smith, 1957)
-Chauvinism	Global Understanding Project (Barrows et al., 1981)
Personal attributes	
-Lack of western ethno-centrism, cognitive flex, behavioral flex, inter-personal sensitivity	Culture Shock Inventory (Reddin, 1975)
-Flexibility/openness, emotional resilience, personal autonomy, perceptual acuity, positive regard for others	Cross-Cultural Adaptability Inventory (Kelley & Meyers, 1987)
Knowledge/interest in world affairs	Global Understanding Project (Barrows et al., 1981)
Human rights perspective	Global Understanding Project (Barrows et al., 1981)
Peace orientation	
-Attitude towards war	Worldmindedness Scale (Sampson & Smith, 1957)
-International cooperation	Future World Perspectives Scale (Silvernail, 1978)
II. UNMEASURED	
Interconnectedness of humanity	
Cultural pluralist	
Ethic of responsibility/Care	
Futurist orientation	
Global-minded behaviors	

and-one-half to two times as many items as will appear on the final instrument. While there is not an exact number of items required for an attitude measure, a length of approximately 30 items was anticipated based on the average length of instruments reviewed in the empirical triangulation phase of this research and Waltz and Bausell's (1981) suggestion that attitude measures rarely consist of more than 40 items. The original pool of 98 statements was anticipated to be large enough to allow for the deletion of numerous items at the stages of content validity assessment and factor analysis.

Most items were worded mildly positively or negatively, since more extreme items tend to create less variance (Mueller, 1986; Waltz & Bausell, 1981). In addition, the items were brief and stated as clearly as possible, attention was paid to phrasing items so they only referred to one idea, and the terminology used was one that would be familiar to college-age students (Mueller; Waltz, Strickland & Lenz, 1984).

Quayhagen (1989) and Waltz, Strickland & Lenz (1984) recommend that people knowledgeable of the research topic be invited to review the items at this stage of the process for, "content, composition, format, redundancy and relevancy" (Dempster, 1990, p. 103). Three professionals in the field of international education reviewed the initial item pool and, as a result of their recommendations, seven items were deleted.

Response Format and Scoring

The most familiar attitude assessment format, a Likert scale and a summated self-report structure, was selected for the Global-Mindedness Scale. The Likert scale is particularly useful when assessing attitudes (Corcoran & Fischer, 1987), has good reliability, and is easier to construct, administer and score than other formats (Nunnally, 1978, Waltz & Bausell, 1981). The points on the scale were strongly agree (5), agree (4), no opinion (3), disagree (2), and strongly disagree (1), with all items considered approximately equal in weight or value. A higher score, then, reflected a stronger degree of global-mindedness.

Nunnally (1978) recommends summated attitude scales since it is relatively easy for the person designing the scales to construct items that have an apparent relationship to one another and for subjects to perceive the themes underlying the items. The final 91 items on the preliminary instrument were divided among the five dimensions of global-mindedness.

Content Validity

Content validity judges were asked to review the preliminary instrument to determine if the items were relevant to the dimensions of global-mindedness and to assess if the tool adequately represented the content or domain of the construct (Waltz, Strickland & Lenz, 1984). They were also asked to comment on the wording and on ways

to improve item clarity. I selected the four content judges with the assistance of my committee members, based on their involvement in international education and the fact that they represented four different academic disciplines (business, language, history and literature). All were faculty members at the University of San Diego.

Each rater was given an instruction sheet, definitions of the construct of global-mindedness and its dimensions, and a copy of the GMS (Appendix E). The scaling format for the instrument was changed from a range of strongly agree to strongly disagree to a four point scale of not valid (1), somewhat valid (2), quite valid (3), and very valid (4). The Content Validity Index (CVI) is defined as the proportion of items given a "quite valid" or "very valid" rating by all the judges (Waltz, Strickland & Lenz, 1984). The CVI may be understood as a numerical representation of the level of agreement among the content judges.

After deleting less valid items, the CVI for the dimensions of global-mindedness were (a) .83 for Interconnectedness of Humanity, (b) .81 for Cultural Pluralism, (c) .88 for Ethic of Care/Responsibility, and (d) 1.0 for Futurist Orientation. This meant, for example, that 13 of the 16 items retained for Cultural Pluralist were scored as quite valid or very valid by all of the content judges, whereas all ten of the items retained for Futurist Orientation were ranked as quite or very valid. The CVI for the overall tool was .88, well above the suggested level of

.80 (Nunnally, 1978; Quayhagen, 1989; Waltz, Strickland & Lenz, 1984).

The judge's remarks and ratings formed the basis for deleting some items and rewording others. A preliminary tool of 91 items representing attitudes, beliefs and behaviors relevant to global-mindedness was then subjected to psychometric evaluation in Phase Six of the process.

CHAPTER FOUR

Phase Six

Psychometric Evaluation of the Global-Mindedness Scale

Phase Six of the Quayhagen and Quayhagen (1988) model for instrument development involved exploration of the psychometric properties of the Global-Mindedness Scale (GMS) through establishment of internal consistency reliability, factorial validity, tool dimensionality, and construct validity (Dempster, 1990; Quayhagen, 1989). A series of ANOVAs were also run to determine significant differences in scores based on demographic data. Finally, a correlation coefficient was established between scores on the GMS and scores on a reduced, nine-item behavioral scale to provide additional support for the validity of the scale. SPSSX (Statistical Package for the Social Sciences) was the statistical program used for the analysis of these data.

Pilot Study

Virtually all the research on instrumentation advised pretesting the instrument under development (Dillman, 1978; Waltz & Bausell, 1981; Quayhagen, 1989; Waltz, Strickland & Lenz, 1984). Pilot testing may reveal difficulties with the instrument related to its content, administration or

scoring. In piloting the GMS, I sought to discover if the words were clearly understood, if the questions implied different meanings to different people, if the response categories for the demographic data were adequate and if the overall reaction to the tool was favorable (Dillman, 1978).

The Global-Mindedness Scale was piloted on a sample of six undergraduates at the University of California, San Diego. They were individually asked to take the instrument, noting how long it took them to complete it and any directions or items that were unclear. The students pointed out difficulties in the scaling format and understood a few of the questions quite differently than I had intended. At this point it was necessary to separate out behaviors and attitudes because the response options for behaviors were necessarily different from those for attitudes. Based on student responses, several more questions were modified or deleted.

The pilot study also gave me an unexpected opportunity to explore eventual uses of the instrument. Almost all the students wanted to stay and talk about how taking the instrument made them feel or the thoughts that were evoked by it. One student said it made her think about why there was such a disparity between her beliefs, which were strongly global-minded, and her behavior, where she was quite limited in terms of her involvement. In the comments section another student wrote, "The questions were thought-

provoking; as I answered each I felt I saw more clearly what I am doing in my life presently."

Estimation of Psychometric Properties of the GMS

Sample

Subjects were recruited from the undergraduate population of the University of California, San Diego. An attempt was made to include a broad representation of ages, ethnicities, academic majors and, as there are five undergraduate colleges at UCSD, I tried to include all five colleges.

A total of 396 subjects took the GMS, which was labelled as a Student Attitude Survey, so as to not bias the responses. About three-quarters of the instruments were administered in a classroom setting by me or an assistant. The remainder were completed by members of student organizations, again supervised by me or an assistant. I identified several required classes that were not related to a particular major in order to have as diverse a sample as possible. The person teaching the class stopped instruction early on the first day of class and then introduced me. I explained the project and told the students that their participation was voluntary. I attended several student organization meetings and followed the same procedure. Demographic data are presented in Table 4.1.

The sample was not as representative of the overall UCSD population as the originally targeted sample. The

Table 4.1

<u>Demographic Data</u>		
SEX	Frequency	Percent
Male	185	46.7
Female	211	53.3
CLASS LEVEL		
Freshman	158	39.9
Sophomore	87	22.0
Junior	81	20.5
Senior	70	17.7
AGE ON LAST BIRTHDAY		
Less than 18	8	1.6
18	124	31.3
19	98	24.7
20	54	13.6
21	43	10.9
22-25	46	11.6
Over 25	11	3.1
Not Reported	12	3.0
FIELD OF STUDY		
Arts	19	4.8
Engineering	38	9.6
Humanities	53	13.4
Science/Math	95	24.0
Social science	122	30.8
Undeclared	62	15.7
Double/Special	6	1.5
COLLEGE OF REGISTRATION		
Revelle	35	8.8
Muir	98	24.7
Third	110	27.8
Warren	52	13.1
Fifth	91	23.0
Not reported	10	2.5
ETHNICITY		
African-American/Black	16	4.0
Native American	4	1.0
Asian/Pacific Islander	57	14.4
Chicano/Mexican American	43	10.9
Filipino	11	2.8
Latino/Other Hispanic	11	2.8
White	245	61.9

United States entered into a military conflict with Iraq in the middle of the sampling, before a sufficient number of upperclass students or Revelle or Warren students had been contacted. I immediately ceased the sampling procedure, believing that a state of war would change the kinds of responses students would give. Though it was not clear exactly how the political environment would alter the results, it is generally recognized that cataclysmic events, such as a war, are a great threat to the external validity of research (Stanley & Campbell, 1963). This is discussed further in the section on limitations in Chapter 1 and under recommendations for future research in Chapter 5.

Procedure

In accordance with established University regulations, consent was obtained from the University of San Diego Committee on Protection for Human Subjects to conduct the instrument development (Appendix A). Student participants were informed of the purpose of the study and assured that their responses would be anonymous (Appendix F). The person administering the instrument requested their assistance in completing the survey, but assured the students that their participation was not required.

The subjects were asked to complete a demographic profile and the Global-Mindedness Scale. Based on the pilot study I estimated that it would take most students 20 minutes to complete the instrument, although the professors

in whose classes it was administered were asked to allow 30 minutes to make sure everyone had ample time. As an expression of appreciation, students were given a \$1.00 coupon to a popular on-campus coffeehouse immediately upon returning the survey.

Global-Mindedness Scale

The first draft of the Global-Mindedness Scale was a 46-item, theoretically multidimensional instrument designed to measure the global attitudes of students (Appendix F). An additional 18 questions were specifically designed to measure behaviors related to global-mindedness. In the development of the instrument, four dimensions of global-mindedness emerged (a) Interconnectedness of Humanity, (b) Cultural Pluralism, (c) Ethic of Responsibility/Care, and (d) Futurist Orientation. Each subscale contained between 8 and 15 items. Eighteen negative items (not global-minded) were included in the scale. Possible scores on the GMS ranged from 46 to 230 when the negative items were reverse scored. Higher scores indicated more strongly global-minded attitudes.

The behavioral component of the GMS was scored separately. Each response set ranged on a five point continuum of never (1), rarely (2), sometimes (3), quite often (4), and frequently (5). The range of possible scores was 18 through 90. A higher score reflected a higher level of involvement and activism.

Results

Internal Consistency Reliability

Internal consistency reliability expresses the degree to which items on an instrument all measure the same construct (Corcoran & Fischer, 1978; Nunnally, 1978) or inter-item consistency (Mueller, 1986). Cronbach's coefficient alpha, the appropriate statistic to use when working with a scale of three or more anchor points (Mueller, 1986; Quayhagen, 1989; Zeller & Carmines, 1980), is based on the average correlation among the items, thereby reflecting the amount of association between variables. The alpha coefficient has a maximum value of 1.0, with a high alpha reflecting that items are measuring the same construct and that the instrument shows a high degree of internal consistency (Corcoran & Fischer). While the literature does not dictate an exact alpha level needed, .70 is suggested for a developing instrument (Nunnally) or .80 for an established scale (Corcoran & Fischer; Nunnally).

Internal consistency reliability alphas were obtained for the total scale and each of its four dimensions. The Cronbach's alphas for the overall tool was .96 and the alphas for the subscales ranged from .70 - .79, resulting in reliability estimates which were well within Nunnally's (1978) accepted levels. These data and the range of corrected inter-item total correlations are presented in Table 4.2. No items were deleted at this preliminary stage.

Table 4.2

Reliability Analysis of the Original
46-Item Global-Mindedness Scale

Subscale	No. of items	Standardized item alpha	Corrected inter-item correlation range
Interconnectedness	8	.70	.23 - .61
Cultural Pluralist	15	.75	.13 - .52
Ethic of Resp/Care	11	.79	.14 - .66
Futurist Orientation	12	.72	.31 - .46
TOTAL TOOL	46	.96	.13 - .66

Factor Analysis

Factor analysis is a statistical procedure which is used to reduce a large number of variables into a smaller more manageable set. It is utilized to reveal the complex relationships among variables and to identify which ones appear to fit together as unified concepts, called factors. The practical purpose of factor analysis is parsimony, or to reduce a set of data so that it may be easily described and the interrelationships between variables understood. A person who scores high on one item on a factor is likely to score high on other items in the same factor. Such an item will correlate at a high level with other items on the same factor and at a low level with items on other factors.

(Dixon, 1986; Nunnally, 1978; Waltz & Bausell, 1981). Factor analysis is also used as a method of item selection (DeVellis, 1991; Nunnally) and construct validation in the development of new instruments (DeVellis; Polit & Hungler, 1989; Waltz & Bausell; Zeller & Carmines, 1980).

Researchers recommend that a sample size of between five (Dixon, 1986) and ten (Nunnally, 1978) subjects per item be obtained. The sample in this research fell within this range, with 363 usable instruments and 46 attitudinal statements on the early version of the GMS. Quayhagen (1989) recommended principal components analysis as the appropriate starting point for investigation of a developing instrument. In this method each principal component factor accounts for more of the variance than would loadings obtained from any other factoring approach (Nunnally, 1978). The factors that result from this procedure are relatively independent of one another because of the way in which they are constructed. In other words, the second factor is defined only "after the variance of the first has been partialled out of each item; the third, only after the variance of the first and second has been partialled out, and so forth" (Waltz & Bausell, 1981, p.301).

Generally a second step of rotation is taken in which factors are repositioned so as to make them more easily interpreted. In orthogonal varimax rotation, used in this research: (a) only the larger, more important factors are

considered; (b) the factors are rotated so that items load significantly on only one factor and; (c) the factors remain independent of one another (Waltz & Bausell, 1981).

This approach, principal components factor analysis with orthogonal varimax rotation, resulted in an eigenvalue for each factor. An eigenvalue is a statistic which represents the relative importance of a given factor to the construct under study, or the amount of variance accounted for by the items on a given factor (Quayhagen, 1989). Generally, only factors with eigenvalues of 1.0 or above are retained (Dixon, 1986; Quayhagen, 1989; Waltz & Bausell, 1981).

Nunnally (1978) explained the factor loading as a factor-variable correlation. Therefore, a higher number indicates a stronger correlation between the item and the factor under study. The researcher must determine the minimum acceptable loading of items on a factor. The literature suggested minimum loading levels of .30 (Waltz & Bausell, 1981), .35 (Dixon, 1986), and .40 (Nunnally, 1978). I decided to use the .35 level suggested by Dixon. Item #26 on the final GMS, which loaded on Factor 1 (Responsibility) at the level of .76, can be said to explain 58% of the variance on that factor (Nunnally, 1978).

Following Dempster's procedures (1990), guidelines for extraction of factors in this research were: eigenvalues above 1.0, subsequent analysis of a skree plot, salient

loadings, simple structure (as opposed to factorial complexity), the ease with which the factor could be interpreted and the degree to which it was conceptually consistent, parsimony, and the importance of the factor to global-mindedness (DeVellis, 1991; Kim & Mueller, 1978; Zeller & Carmines, 1980). Additionally, the minimum factor size was determined to be three items (Nunnally, 1978; Quayhagen, 1989).

First Factor Analysis

Thirteen eigenvalues of 1.0 or more, accounting for 57.7% of the variance, emerged from the first principal-components factor analysis of the 46 item GMS. Only one item, "I have very little in common with people in underdeveloped nations," which loaded on Factor 4 at .31, fell below Dixon's (1978) suggested .35 level of acceptable loading.

This thirteen factor solution exhibited a fairly simple structure, with only three variables loading on more than one factor at the .35 level or above. With the 13 factor 46 item solution, the factors contained 7, 4, 4, 4, 5, 4, 2, 2, 2, 2, 3, and 2 items respectively. Loadings ranged from .31 to .77 for the thirteen factors.

The task of the researcher in interpreting factor analytic results is to identify, from the rotated factor matrix, which variables go with a factor, then name the factor based on whatever meanings these variables with high

loadings have in common (Dixon, 1986). In naming and describing the factors, the researcher applies knowledge of the statistical techniques used and of the construct under study, and an ability to develop new conceptualizations of the subject matter (Dixon). The items that load most highly on a factor should also be considered as a guide in naming factors (Waltz & Bausell, 1981). The 13 factors were tentatively named (I) Responsibility - 7 items, (II) Efficacy - 4 items, (III) Cultural Interest - 4 items, (IV) Cultural Outreach - 4 items, (V) Economics - 5 items, (VI) Interconnectedness - 4 items, (VII) Futurist Orientation - 2 items, (VIII) Peace Advocate - 2 items, (IX) Career Orientation - 2 items, (X) Community Orientation - 2 items, (XI) Cultural Benefit - 3 items, (XII) Lack of Ethnocentrism - 3 items, and (XIII) Globalist - 4 items.

These emerged factors seemed to reflect the originally proposed dimensions, but made greater distinctions within categories. For example, Futurist Orientation from the original scale was clearly divided into its components of feeling that one is able to influence the future (II), understanding the impact of economic systems (V), thinking about the future (VII), seeking peaceful solutions to international conflict (VIII), and, finally, making career plans which would allow one to have an impact on future conditions (IX). Similarly, Cultural Pluralism was reported in this factor analysis as three separate factors which

reflected interest in other cultures (III), cultural outreach through travel or language acquisition (IV), and a belief that all cultures have something of benefit to offer (XI). I decided to further explore potential configurations of the data before deleting items.

Second Factor Analysis

At this point I decided to submit the instrument to a second principal components analysis with orthogonal varimax rotation, using a seven factor approach. This resulted in seven eigenvalues over 1.00, explaining 42.5% of the variance. A review of the seven factors again reflected the dimensions originally proposed for the GMS. The factors were tentatively identified as

(I) Responsibility - 7 items, (II) Cultural Interest and Concern - 10 items, (III) Efficacy - 6 items, (IV) Global Worldview - 7 items, (V) Lack of Ethnocentrism - 6 items, (VI) Interconnectedness - 7 items, and (VII) Peace Orientation - 3 items.

Of the 46-item, seven factor solution, 4 variables did not meet the .35 minimum level of salient loading. These variables were: 45, "I am interested in joining the Peace Corps," which loaded at .33 on Factor II; 29, "Social problems are rapidly becoming globalized," which loaded at .32 on Factor IV; 18, "It is probably a good idea to use ethnicity as one of the criteria for immigration," which loaded at .33 on Factor VI; and 5, "What happens in other

countries has little impact on what happens in this country," which loaded at $-.31$ on Factor VII. With this solution four variables had double loadings.

Third Factor Analysis

At this point, items 5, 29, and 45 were deleted due to a loading of less than $.35$ on a single factor. Item 18, which had loaded at $.33$ was retained because it was the only question which directly addressed ethnicity and I was interested in further exploring its relationship to global-mindedness.

A third principal components factor analysis was then performed, again using a seven factor approach. Reliability estimates were performed on the seven factor, 43-item scale. The dimensions and their reliability coefficients are presented in Table 4.3.

At this time the decision was made to begin removing items which were not functioning adequately. Since Factor VII contained only two items (numbers 40 and 46) it was deleted. Item 40, "Concessions on the part of my country to other countries are morally right if they will promote peace," and item 46, "The primary goal of American foreign policy should be to promote peaceful resolution of international conflict," were removed from the instrument. I believe that these items still bear relevance to global-mindedness and that these results may have been influenced by the fact that the country was on the brink of war at the

time of this research.

Item 16, "It is a waste of time to worry about the long term future since we can't control what will happen anyway," was also deleted due to its low correlation with Factor II and the concern that it might lend itself to measuring fatalism as it relates to religious beliefs better than an orientation towards the future. Item 36, "Some cultures value human life less than mine," was also dropped based on its low item-total correlation on Factor III.

Table 4.3

Reliability Analysis of the Reduced 43-Item,
Seven Factor Solution of the Global-Mindedness Scale

Factor		Reliability alpha	No. of items
Factor I	Responsibility	.80	7
Factor II	Efficacy	.74	7
Factor III	Cultural Interest	.71	9
Factor IV	Cultural Pluralist	.65	6
Factor V	Lack Ethnocentrism	.63	6
Factor VI	Interconnectedness	.68	5
Factor VII	Peaceful Conflict Resolution	.57	2

Fourth Factor Analysis

The fourth factor analysis was performed on the remaining 39 items, requesting a six factor solution. It became clear that four of the factors were remaining quite stable with each subsequent factor analysis but two, both reflecting cultural interest and pluralism were less consistent and had a much lower reliability alpha. At this time items 3, "We must sometimes give up what we want for the good of our community" and 30, "Technology will solve the world's problems," were deleted.

Because a disproportionate number of items relating to cultural difference maintained acceptable loadings on two factors, the decision was made to get rid of several of the items that loaded at lower levels in an attempt to restructure the items about cultural difference into one, more cohesive, factor. Frequencies of agree and strongly agree responses were also used to eliminate some of the culture-related items. Ninety percent of the respondents had answered agree or strongly agree to some of these items, and they were removed at this time since they were not effective in discriminating among respondents (Mueller, 1986). Item 6, "The values of my culture are not necessarily the best;" 13, "I am not interested in learning about other cultures;" 21, "The thought of travelling to other countries doesn't appeal to me;" 24, "I like to compare values and customs;" 42, "I wouldn't want to live or

study in another country;" and 43, regarding interest in second language acquisition were also deleted, leaving a total of 31 items.

Fifth Factor Analysis

The fifth factor analysis, performed on 31 items, resulted in a five factor solution. Item 18, which addressed the use of ethnicity as an immigration criterion, still did not load adequately on a factor and was deleted at this time, resulting in a 30-item scale with five dimensions. The five eigenvalues above 1.0 accounted for 46.2% of the variation. The five factors on the final instrument were conceptually distinct and were easily identified as (I) Responsibility - 7 items, (II) Cultural Pluralism - 8 items, (III) Efficacy - 5 items, (IV) Globalcentrism - 5 items, and (V) Interconnectedness - 5 items.

Table 4.4 presents the final five factor solution of the 30-item GMS and Table 4.5 outlines the items, their factor loading and the original subscale on which each item was located. The reliability for the overall instrument was .90, exceeding the reliability Nunnally (1978) stated as desirable for an instrument under development. The reliability coefficient for each dimension of the 30-item Global-Mindedness Scale is presented in Table 4.6.

The reliability of the final instrument was lower than the original 46-item scale. This lower rating is probably

Table 4.4**Five Factor Solution of the 30-Item Global-Mindedness Scale**

Factor	Eigenvalue	% of Variance	Cumulative percent	Item	Loading
Responsibility I	7.75	25.8	25.8	26-R 19-R 25-R 28-R 15-R 39-R 14-R	.76 .64 .61 .59 .57 .56 .48
Cultural pluralism II	1.74	5.8	31.6	38-CP 37-CP 27-CP 1-CP 32-CP 34-F 33-R 22-I	.74 .70 .59 .55 .50 .49 .42 .36
Efficacy III	1.63	5.5	37.1	8-F 2-F 41-I 4-F 44-F	.73 .69 .64 .62 .40
Global- centrism IV	1.42	4.7	41.8	20-F 10-F 9-R 12-CP 7-CP	.69 .67 .59 .47 .34
Intercon- nectedness V	1.33	4.4	46.2	17-I 11-I 31-I 35-I 23-F	.67 .66 .65 .50 .39
<hr/>					
R =	Ethic of Responsibility/Care				
CP =	Cultural Pluralism				
I =	Interconnectedness				
F =	Futurist Orientation				

Table 4.5

Items and Salient Loadings of the Reduced 30-Item,
5 Factor Solution of the GMS

Factor 1 RESPONSIBILITY

No.	Loading	Item
26.	.76	When I hear that thousands of people are starving in an African country, I feel very frustrated.
19	.64	The fact that a flood can kill 5,000 people in India is very depressing to me.
25	.61	When I see the conditions some people in the world live under, I feel a responsibility to do something about it.
28	.59	Americans have a moral obligation to share their wealth with the less fortunate peoples of the world.
15	.57	I feel very concerned about the lives of people who live in politically repressive regimes.
39	.56	I sometimes try to imagine how a person who is always hungry must feel.
14	.48	I feel an obligation to speak out when I see our government doing something I consider wrong.

Factor 2 CULTURAL PLURALISM

No.	Loading	Item
38	.74	I enjoy trying to understand people's behavior in the context of their culture.
37	.70	I generally find it stimulating to spend an evening talking with people from another culture.
27	.59	The United States is enriched by the fact that it is comprised of many people from different cultures and countries.

Table 4.5 Continued

1	.55	Americans can learn something of value from all different cultures.
32	.50	It is important that universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.
34	.49	It is important that we educate people to understand the impact that current policies might have on future generations.
33	.40	My opinions about national policies are based on how those policies might affect the rest of the world as well as the United States.
22	.36	I have very little in common with people in underdeveloped nations.*

Factor 3 EFFICACY

No.	Loading	Item
8	.73	Really, there is nothing I can do about the problems of the world.*
2	.69	I am able to affect what happens on a global level by what I do in my own community.
41	.64	My behavior can impact people in other countries.
4	.62	Generally an individual's actions are too small to have a significant effect on the global ecosystem.*
44	.40	I plan to pursue a career in which I can have a positive effect on the quality of life for future generations.

Table 4.5 Continued

Factor 4 GLOBALCENTRISM

No.	Loading	Item
20	.69	The presentation distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.*
10	.67	Americans should be permitted to pursue the standard of living they can afford, even if it has a negative impact on the environment.*
9	.59	The needs of the United States must continue to be our highest priority in negotiating with other countries.*
12	.47	American people are probably the best in the world.*
7	.34	I feel irritated with people from other countries because they don't understand how we do things here.*

Factor 5 INTERCONNECTEDNESS

No.	Loading	Item
17	.67	I feel a strong kinship with the worldwide human family.
11	.66	In the long run, Americans will probably benefit from the fact that the world is becoming more interconnected.
31	.65	I think of myself, not only as a citizen of my country, but also as a citizen of the world.
35	.50	It is not really important to me to consider myself as a member of the global community.*
23	.39	I often think about the kind of world we are creating for future generations.

* Reverse score

Table 4.6

Reliability Analysis of the Reduced 30-Item, Five Factor
Solution of the Global-Mindedness Scale

Subscale	No. of items	Standardized item alpha	Corrected inter-item correlation range
Factor 1 Responsibility	7	.80	.42 - .70
Factor 2 Cultural Pluralism	8	.75	.37 - .57
Factor 3 Efficacy	5	.72	.36 - .56
Factor 4 Globalcentrism	5	.65	.57 - .62
Factor 5 Interconnectedness	5	.70	.61 - .72
TOTAL TOOL	30	.90	.36 - .72

due to the fact that longer tests tend to be more reliable (Anastasi, 1988; Mueller, 1986). Use of the Spearman Brown prophecy formula, which determined the level of reliability had the final scale been as long as the original, confirmed this. Had the final scale contained 46 items the reliability for the overall tool would have been .93, approaching the high reliability level of the initial scale.

Two items still loaded above the .35 level on two factors. Item 44 loaded on Factor III at .40 and on Factor V at .39, and Item 17 loaded at .35 on Factor I and at .66 on Factor V. Both of these items were retained on the

factor with the highest loading since they were judged to be important to the overall scale.

The final version of the GMS was well within the parameters established for accepting the results of factor analysis. All but one of the items that were retained loaded on a factor at a minimum level of .35 (Dixon, 1986). The range of the corrected inter-item totals was above the minimum .30 level (Nunnally, 1978).

Dimensionality of the Instrument

The next step in the development of the GMS was the determination of the tool's dimensionality through calculation of Pearson product-moment correlation coefficients (Dempster, 1990). An instrument which measures only one variable is considered unidimensional, whereas an instrument which measures two or more variables is referred to as multidimensional, regardless of the number of items used to measure any one dimension (Hudson, 1985). Generally correlations of less than .40 between subscales indicate that the instrument is multidimensional, while correlations above .70 imply unidimensionality (Dempster, 1990).

Correlations were run at several points during the analysis of data to determine whether the deletion of items would influence the correlations among subscales. The correlation coefficients on the original 46-item GMS ranged from .56 to .62 (Table 4.7). This is somewhat higher than the range shown in Table 4.8 for the final Global-Mindedness

Table 4.7

Dimensionality: Subscale Correlations of the Original
46-Item Global-Mindedness Scale

	Intercon- nectedness	Cultural Pluralism	Care/ Respon.	Futurist Orientation
Intercon- nectedness	1.0	.61*	.62*	.59*
Cultural Pluralism	.61*	1.0	.61*	.57*
Ethic of Care Responsibility	.62*	.61*	1.0	.61*
Futurist Orientation	.59*	.56*	.61*	1.0

*p<.001

Table 4.8

Dimensionality: Subscale Correlations of the Reduced 30-Item
Global-Mindedness Scale

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1 Responsibility	1.0	.52*	.47*	.48*	.50*
Factor 2 Cultural Pluralism	.52*	1.0	.44*	.48*	.51*
Factor 3 Efficacy	.47*	.44*	1.0	.34*	.43*
Factor 4 Global- Centrism	.48*	.48*	.34*	1.0	.42*
Factor 5 Intercon- nectedness	.50*	.51*	.43*	.42*	1.0

*p<.001

Scale, which ranged from .34 to .52. This suggested that the elimination of items through the process of factor analysis had enhanced the multi-dimensionality of the instrument and that each dimension contributed uniquely to global-mindedness.

Convergent Validity

Construct validity of an instrument can be further confirmed through establishing convergent validity with another instrument. The underlying assumption is that different measures of related concepts will correlate with one another, thereby confirming the validity of the construct (Campbell & Fiske, 1959; Waltz, Strickland & Lenz, 1984). Quayhagen (1989) suggested that a satisfactory level of correlation would be in the .50 range, but that a researcher hopes for a level as high as .70. Anastasi (1988) said that moderate correlations in the range of .40 to .70 are preferable, with a correlation above .70 suggesting that the instruments are, in fact, measuring the same construct and that the new tool is unnecessary.

Correlations were established between the reduced 30-item GMS and the Chauvinism (Appendix G) subscale of the Global Understanding Project (Barrows et al., 1981), and the International Concern (Appendix H) subscale (Yachimowicz, 1988), modified from the Barrows instrument. Permission to use items from the Global Understanding Project was obtained from Transaction Publishers, Rutgers University. This

correlation was based on information obtained from surveying a portion of the total sample (the Chauvinism Scale was administered to 107 students, while the International Concern subscale was administered to 69 students).

I felt that chauvinism, generally defined as excessive patriotism or undue partiality or attachment to a group or place to which one belongs, was an appropriate tool to use to establish validity. Global-mindedness, with its focus on seeing oneself as a member of and identifying with the larger world community seemed to represent the opposite of chauvinism. In the research of Barrow et al. (1981), the Chauvinism Scale (when reverse scored) showed a .49 - .70 correlation with the affective component of global understanding. The correlations were presented as a range since data were provided for three separate populations (freshmen, seniors and students at two-year colleges).

Yachimowicz (1988) adapted scales from the Global Understanding Project (Barrows et al., 1981) in order to compare levels of International Understanding between students who had studied abroad and those who had not. Repeated factor analysis of the data resulted in two primary factors, International Concern and Domestic Orientation. I believed that International Concern, which focused on cooperative, global organizations governing resources and a sense of responsibility towards the global community, should correlate with global-mindedness. Yachimowicz found that

students who had studied abroad scored significantly higher on the International Concern subscale than those who had not.

A correlation of .65 (when reverse scored), significant at the .001 level, was established between the GMS and the Barrow's Chauvinism Scale (1981), providing evidence of construct validity. The International Concern subscale demonstrated a low correlation of .32 with the GMS which was significant at the .01 level. This disappointingly low correlation may have been due to the combination of very strongly worded items on the International Concern subscale with the precarious global situation during the early weeks of 1991. Choosing to be a citizen of the world rather than of any one country or supporting a world government may be more desirable in times of peace than when the country is on the brink of war.

Relationship Between Predictive Criteria and GMS Score

Another area of interest was whether or not the revised 30-item Global-Mindedness Scale would show significant differences across a variety of demographic variables that had been collected at the time of the instrument administration.

Sex

The literature suggests that women demonstrate a higher level of cross-cultural interest than men (Carlson & Widaman, 1988) and are generally more empathic to conditions

in the Third World (Drake, 1984). In addition, women scored higher on a scale to measure opposition to war (Barrows et al., 1981). This information suggested that women might score higher on the GMS than men. This hypothesis was confirmed, with a mean score for men of 113.32 and a mean score for women of 120.37. This difference was significant at the .001 level.

Class Level and Age

Drake (1984) found that older students were more knowledgeable, more empathic, and more concerned about the Third World; more willing to lower their standard of living in order to help people in the Third World improve theirs; and much more supportive of the concept that America's responsibility to people in the Third World ought to be as great as its responsibility to people in the United States. The difference she uncovered between younger (under 20 years of age) and older (over 20 years of age) student attitudes towards interdependence and global economic realities suggested that the GMS might uncover some of these same distinctions. An analysis of student responses by age did not, however, indicate any significant differences between older and younger students. Of the students surveyed, 56% were 18 and 19 years old. This concentration of younger students may have limited the differences found.

Both Drake (1984) and Barrows et al. (1981) found that class level made a difference in global attitudes, with

seniors reporting more awareness of interdependence and a greater level of concern. These results were not confirmed by this research, and no significant difference was found in global-mindedness score based on class level. The smaller number of upperclass students surveyed may have influenced these findings.

College of Registration

The GMS did reflect some attitudinal differences among students at UCSD's five undergraduate colleges. These results would seem to confirm data collected by the American Council of Education and the Cooperative Institutional Research Program at the University of California, Los Angeles (University of California, San Diego, 1988). The survey, conducted annually across the country, describes the demographic characteristics, educational plans, aspirations, attitudes and values of UCSD's entering class of freshmen in 1988. There were some highly significant differences among students at the different colleges.

In response to the question, "How important do you think it is that the University provide programs designed to promote greater understanding among students of different ethnic backgrounds?", the responses ranged from a high 39.2% of Fifth College students who felt it was essential to a low of 17.5% of Warren College students. An average of 26.2% of UCSD students felt that it was essential for the University to provide these kinds of programs.

A second question, "While at UCSD do you plan to participate in student programs or activities that will broaden your understanding of ethnic groups other than your own?", elicited similar responses. A high of 45.2% of Fifth College students responded, "Yes, definitely," while a low of 15.6% at Warren College chose that response category. An average of 23.5% of UCSD entering freshmen chose this response. Other pertinent data from the survey, comparing the responses of Fifth College students to the response of UCSD students as a whole, are listed in Table 4.9.

Table 4.9
Student Responses to the Astin Survey, 1988

University of California, San Diego

Personal Objectives Considered
Essential or Very Important

	Fifth College	UCSD
Keeping up with political affairs	68.5%	54.0%
Promote racial understanding	59.3	48.8
Influence social values	45.3	38.0
Take part in community action	33.8	28.3
Influence the political structure	32.1	18.7
Join Peace Corps/Vista etc.	18.2	10.3

Political Views

Far right	1.4%	1.1%
Conservative	19.2	20.2
Middle of the Road	37.5	43.9
Liberal	38.7	32.8
Far left	3.2	1.9

Length of Time Spent out of U.S.

More than 1 year	24.1%	18.5%
7-12 months	3.3	2.5
4-6 months	3.0	2.2
1-3 months	21.7	12.9
None	47.9	63.9

The data were collected exclusively from freshmen, so this limited their usefulness as a predictor to some extent. Nonetheless, the data suggest that Fifth College students might score significantly higher on the Global-Mindedness Scale than students at UCSD's other four colleges. This hypothesis was borne out by the research. An analysis of variance showed this difference to be significant at the .05 level (Table 4.10). A post-hoc comparison utilizing the Tukey-B procedure demonstrated that a significant difference was found between Fifth and Warren colleges.

Table 4.10Analysis of Variance - College of Registration

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	4	1936.87	484.22	3.008	.0184
WITHIN GROUPS	357	57462.96	160.96		
TOTAL	361	59399.83			

	1	2	3	4	5
	Revelle	Muir	Third	Warren	Fifth
Grp Means	113.20	118.00	117.27	112.64	119.33
1 113.20					
2 118.00					
3 117.27					
4 112.64					
5 119.33				*	

* $p < .05$

Field of Study

Barrows et al. (1981) did not report any significant differences in affective global understanding among students of different majors. An analysis of variance from each of the different fields of study affirmed this finding. The mean scores for each major area were: arts - 120.01, engineering - 112.43, humanities - 119.43, science/math - 116.11, social science - 118.14, and undeclared - 115.43. Subsequent T-tests revealed a significant difference at the .01 level between the scores of engineering students and humanities and arts majors and a difference significant at the .05 level between the scores of engineering and social science students.

Ethnicity

Drake (1984), in her survey of attitudes towards the Third World, did not find any significant relationship between ethnicity and attitude. These results supported the findings of the present study and no significant difference in the scores was found based on ethnicity.

Country of Birth

Barrows et al. (1981) did not find a significant correlation between the affective component of global understanding and country of birth. This research also found no significant difference between the 289 respondents who were born in the United States and the 78 who were born elsewhere.

Global Studies Courses and Activities

This research revealed a significant correlation at the .05 level between number of global studies courses taken and global-mindedness (Table 4.11). This differed encouragingly from Barrow's (1981) disappointing lack of correlation between the knowledge and affect components of global understanding and course study. In a regression analysis of these same data Torney-Purta (1982) reported that seniors who had taken more history and geography courses did report higher global understanding scores.

Table 4.11

Analysis of Variance - Number of International Courses

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	4	3307.24	826.81	5.142	.0005
WITHIN GROUPS	365	58681.63	160.77		
TOTAL	369	61988.87			

Group #	1	2	3	4	5
# Classes	0	1-2	3-4	5-6	7+
Grp Means	114.75	114.79	118.29	120.84	123.38
1 114.75					
2 114.79					
3 118.29					
4 120.84		*			
5 123.38	*	*			

*p<.05

In this research students were asked to report the number of courses they had taken which dealt with global issues or in which they had learned a lot about countries besides the United States. Utilizing the Tukey-B, post-hoc comparison technique, there was a significant difference in global-mindedness score between students who had taken fewer than three globally-oriented courses and those who had taken five or more courses. This would seem to support Torney-Purta's (1982) findings that there is some relationship between academic experience and global attitudes.

In a related area, there was also a significant difference in the global-mindedness scores of students who attended internationally oriented programs frequently as opposed to those who had attended none or one during the previous academic quarter. Table 4.12 presents the results of the ANOVA and post-hoc comparison.

News Acquisition Preference

The Barrow's study (1981) found that reading international news in newspapers and the frequency of newspaper reading formed a cluster of correlates of knowledge and affect scores in the measurement of global understanding. They posited that the relationship may either indicate that international news in newspapers is the most informative source, for electronic news was not related to knowledge or affect scores (although television was the most frequent choice as the main source of information on

Table 4.12**Analysis of Variance - Number of Internationally Oriented Activities Attended Last Quarter**

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	4	6176.91	1544.23	10.099	.0000
WITHIN GROUPS	365	55811.97	152.91		
TOTAL	369	61988.87			

Group #	1	2	3	4	5
# Programs	0	1	2	3-4	5+
Grp Mean	112.89	116.22	118.35	122.64	124.67
1	112.89				
2	116.22				
3	118.35	*			
4	122.64	*			
5	124.67	*	*	*	

*p<.05

current events), or that these news articles are turned to only by students whose motivation and interest are already high. This research revealed no significant differences among the global-mindedness scores of students who reported newspapers, magazines, television, radio or friends as their main source of information on current events. The results might have been somewhat different if the question had been better placed on the survey. The question before it asked the student to check "all that applied," and despite the instructions on this question to "check only one," many students gave more than one answer, leaving many unusable responses.

Political Interest

Barrows et al. (1981) reported that students who indicated that their political attitudes were to the left of the political continuum responded to the affect questions in a more aware or understanding direction. Drake (1984) found that those who consider themselves to be politically conservative were far less empathic and understanding of conditions in the third world than self-acknowledged liberals. The GMS results supported these data, with a post-hoc comparison demonstrating significantly higher scores for students who report their political attitude as more liberal from those who said they were more conservative. Table 4.13 presents the results of the ANOVA and subsequent comparisons.

Political interest, as measured by the question, "How often do you talk about politics with other people," also showed a relationship with global-mindedness. The responses were divided into three categories, and there was a significant difference between those who talked politics almost never or from time to time and those who talked politics several times a week or nearly every day. Table 4.14 presents these results.

Table 4.13Analysis of Variance - Political Views

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	4	7797.07	1949.27	13.02	.0000
WITHIN GROUPS	360	53879.61	149.66		
TOTAL	364	61676.67			

Group # Political Views	1 Far Left	2 Liberal	3 Middle of Road	4 Conser- vative	5 Far Right
Grp Mean	131.00	120.68	115.32	112.64	86.5
1 131.00					
2 120.68					
3 115.32	*				
4 112.64	*	*	*		
5 86.50	*	*	*		

*p<.05

Table 4.14Analysis of Variance - Frequency of Talking Politics

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	2	2714.77	1357.38	8.40	.0003
WITHIN GROUPS	367	59274.10	161.51		
TOTAL	369	61988.87			

Group #	1	2	3
Frequency	Never/From Time to Time	Once a Week	Several Times or Daily
Grp Mean	114.23	117.12	120.20
1 114.23			
2 117.12			
3 120.20	*		

*p<.05

Friendship Patterns

The research indicates that interaction with international students results in more positive attitudes and understanding across cultures (Paige, 1983); greater cultural pluralism, worldmindedness, support for internationalism, international career interests and political liberalism (Sharma & Jung, 1985); and a stronger global orientation (Matross, Paige & Hendricks, 1982). This suggested that a student who reported several close friends of a different culture or nationality would score more highly on the GMS. This hypothesis was confirmed, with students who claimed that two or more of their friends came

from countries or cultures other than their own scoring significantly higher than students with fewer than two friends from other countries. The results are presented in Table 4.15.

Table 4.15

Analysis of Variance -Number of Friends From Other Countries or Cultures

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB
BETWEEN GROUPS	2	5105.75	2552.87	16.47	.0000
WITHIN GROUPS	367	56883.13	154.99		
TOTAL	369	61988.87			

Group # # Friends	1 Zero or 1-2 Acquaintances	2 One Friend	3 Two or More Friends
Grp Mean	109.97	115.44	119.81
1 109.97			
2 115.44	*		
3 119.81	*	*	

*p<.05

Second Language Proficiency

Barrows et al. (1981) and Lucero (1988) found that the affective component of global understanding was associated with foreign language proficiency to a moderate degree. The Global-Mindedness Scale only minimally reflected these findings. The only significant relationship found among the ten levels of language ability was between 0 (no ability,

whatsoever) and 9 (complete fluency). This suggested that second language proficiency is only slightly related to global-mindedness.

International Experience

Visiting other countries and spending time outside the United States was related to knowledge, affect and foreign language ability in the Barrows et al. (1981) research. Question 23, which asked for the total amount of time spent travelling, living, working or studying outside the United States reflected a significant difference only between those who had spent less than one month out of the country and those who had spent more than one year. The problem with this question became evident during the tabulation of results. A student could have spent three weeks in Vancouver and a spring break just south of the Mexican border and they would fall into the category of having spent 1 - 3 months out of the country, as would a student who had spent ten weeks backpacking in India. These very different experiences would probably have different outcomes, but this question did not get at the different kinds of travel students might have done outside the country, nor at how culturally similar the country of destination was.

Question 22 functioned slightly better, but because the responses were not all discrete categories it was not possible to perform an analysis of variance. T-tests between mutually exclusive categories did demonstrate

significant differences in GMS score between students with different levels of international experience (Table 4.16).

Table 4.16

T-Tests - International Experience

	N	Mean	SD	Pooled Variance Stand. Error	t value	Estimate df	2-tail Prob
Only travel in U. S.	93	115.74	11.34	1.18			
					-2.21	218	.028*
More than 9 weeks outside U. S.	127	119.51	13.29	1.18			
Only 1 or 2 brief trips outside U. S.	54	114.26	13.09	1.78			
					-2.44	179	.015*
More than 9 weeks outside U. S.	127	119.51	13.29	1.18			
Only travel in U. S.	93	115.74	11.34	1.18			
					-2.58	209	.011*
Lived in a community out- side U. S.	118	120.08	12.68	1.17			

*p<.05

Students who had only travelled in the United States and Canada were less global-minded than those who had travelled outside the country for nine weeks or more, and than those who had lived in a community outside the United

States for nine weeks or more. Those students who had only made one or two brief trips outside the United States were less global-minded than those who had travelled outside the country for more than nine weeks. No significant difference was found between students who had travelled only in the United States and Canada and those who reported having made only one or two brief trips outside these countries.

Behavioral Correlations with Global-Mindedness Scores

The literature calls for further study of the relationship between global attitudes and behaviors (Silvernail, 1979). Rentschler (1980), investigating this relationship, found that worldminded people tended to be more activist and public in speaking out, writing letters to editors, meeting officials, and participating in demonstrations. The Global-Mindedness Scale attempted to further explore the area of behaviors by establishing a correlation between reported behaviors and attitudes.

Number 53, "I vote in local, state and national elections," was deleted prior to analysis since many of the students were 18 years old and had not yet had an opportunity to vote. A factor analysis was performed on the behaviors to see what categories would emerge. Three clear factors surfaced: (I) Activism, which included all the statements about involvement with political groups or human rights organizations, participation in political demonstrations, and correspondence with political leaders;

(II) Cultural Interest, which included seeking out opportunities to meet people who speak different languages, reading books, and attending internationally-oriented student activities; and (III) International News Acquisition, which encompassed reading international news articles, discussing world issues, and acquiring information about international developments. The statement concerning recycling behavior did not load onto any one factor and was removed. The other items loaded very strongly on these three factors, ranging from .47 to .80.

As a second step, a correlation matrix was run between each behavior and the total score on the revised GMS. Nine of the behaviors had correlations of at least .35 and were retained. The reliability of this scale was .85. A second factor analysis revealed that Activism and Cultural Outreach were the two underlying dimensions. Table 4.17 outlines these behaviors and the level at which they correlated with the overall tool.

A subsequent correlation matrix was run between the behavioral scale and the five dimensions of the final form of the GMS. The results indicate a high correlation of .61 between behaviors and the overall tool, significant at the .001 level.

Table 4.17Behavioral Correlations with GMS Score

	Behavior	Correlation
FACTOR I - ACTIVISM		
BEH1	Participate in or contribute money to organization combatting world hunger.	.35*
BEH2	Participate in an organization which has ecological concerns on its agenda.	.38*
BEH3	Participate in an organization which publicly expresses its concern on national or international concerns.	.39*
BEH4	Participate in an organization which supports universal human rights.	.39*
BEH14	I participate in political demonstrations.	.36*
FACTOR II - CULTURAL OUTREACH		
BEH5	I seek out opportunities for meeting people who speak other languages.	.45*
BEH8	I look for opportunities to meet people from backgrounds different from mine.	.50*
BEH13	I read books or magazine articles about other cultures.	.41*
BEH16	I participate in student programs and activities that will broaden my understanding of ethnic groups other than my own.	.42*

*p<.001

The correlation coefficient of this scale with each of the dimensions of global-mindedness were (a) Responsibility - .49, (b) Cultural Pluralism - .52, (c) Efficacy - .51, (d) Globalcentrism - .31, and (e) Interconnectedness - .52. Again, all of these correlations were significant at the .001 level. This correlation served to enhance the validity of the scale since both the literature and the qualitative research had suggested that there was a positive relationship between

global-mindedness and behaviors.

Summary

Psychometric testing performed on the 363 fully completed Student Attitude Surveys revealed that the new tool demonstrated acceptable levels of reliability and validity. Internal consistency reliability was established through derivation of Cronbach's coefficient alpha. Construct validity was confirmed through factor analysis, correlations with existing instruments, and analysis of variance to establish significant differences in scores based on criteria established by the literature and through the qualitative research.

The final instrument, the Global-Mindedness Scale, consisted of 30 items and five factors. Appendix I contains the revised instrument with some additional minor changes in wording, based on comments made by participants in the study.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

While there has been a considerable amount of attention paid to the importance of developing a global perspective in students, very little research has been done to assess the results of these efforts. The 30-item Global-Mindedness Scale provides a means for evaluating the effectiveness of attempts to develop a global worldview in students. An extensive review of related empirical instruments, summarized in Chapter Two, indicated that there is no instrument available to measure this construct.

This research utilized the retroductive triangulation methodology developed by Quayhagen and Quayhagen (1988). In this approach, extensive interviews were conducted with persons who possess a strong global orientation and a high level of commitment to the world community. The results of this qualitative study were triangulated with a review of research from several related academic areas and existing instruments which measure constructs related to global-mindedness. The final 30-item Global-Mindedness Scale contained five underlying dimensions, labelled:

Responsibility, Cultural Pluralism, Efficacy, Globalcentrism, and Interconnectedness. Internal consistency reliability for the scale, using Cronbach's alpha, was established to be .90 and factorial validity was established. This initial psychometric evaluation analysis indicates that the new scale has a good potential for use in a variety of research settings.

Conclusions

In this research I sought to answer seven questions. Each question is addressed in this section.

Research Question #1

What is global-mindedness?

A preliminary working definition of global-mindedness was developed (Table 3.4) and the construct was revised as new categories emerged from the interviews and from the literature. Global-mindedness, as it evolved through the instrument development process, is a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility for its members. This commitment is reflected in attitudes, beliefs, and behaviors. A definition of global-mindedness and its five dimensions is presented in Table 5.1.

Table 5.1

Revised Theoretical Definition of
Global-Mindedness and Its Dimensions

Globalmindedness is a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility for its members. This commitment is reflected in attitudes, beliefs, and behaviors.

Dimensions of Global-Mindedness

Responsibility: A deep personal concern for people in all parts of the world which surfaces as a sense of moral responsibility to try and improve conditions in some way.

Cultural Pluralism: An appreciation of the diversity of cultures in the world and a belief that all have something of value to offer. This is accompanied by taking pleasure in exploring and trying to understand other cultural frameworks.

Efficacy: A belief that an individual's actions can make a difference and that involvement in national and international issues is important.

Globalcentrism: Thinking in terms of what is good for the global community, not just what will benefit one's own country. A willingness to make judgements based on global, not ethnocentric, standards.

Interconnectedness: An awareness and appreciation of the interrelatedness of all peoples and nations which results in a sense of global belonging or kinship with the "human family."

Research Question #2

What attitudes, beliefs, and behaviors do persons with extensive cross-cultural experience, expertise in global education, or a strong commitment to the world community, believe to be associated with global-mindedness?

Eleven dimensions emerged from interviews with people who had demonstrated an understanding of global-mindedness through their personal and professional commitments. These dimensions and the associated characteristics of global-minded people include:

1. Possess Certain Personal Attributes. Tend to be inquisitive, flexible, tolerant of ambiguity, and open-minded; seek opportunities for hearing "the other" and for learning about those different from themselves.

2. Believe in the Unity of Humanity. Have looked within and, in that self-reflection, have found their own connection to the larger world community; are aware of the common thread that links them to other people everywhere; and feel a sense of global belonging.

3. Are Cultural Pluralists. Understand culture and how it influences worldview and behavior and, more than this, find great pleasure in the diversity and challenge that cross-cultural experiences have brought into their lives.

4. Oppose Prejudice. Reject all forms of prejudice, including ethnocentrism, chauvinism, and racial prejudice

because they see beyond the superficialities of culture, color, religion, etc., to the essence of a shared human experience on earth.

5. Are Activists. Live their vision by acting; have a sense of empowerment; believe in the importance of doing something, whether in one's own community or on a global level; possess a sense that they can make a difference.

6. Exhibit Environmental Concern. Are concerned for the well-being of the planet.

7. Understand the Interconnectedness of the Global Community. Feel a sense of kinship and connectedness with the human family and see the benefits of this growing interconnection for their own culture or nation.

8. Have a Sense of Responsibility and Care. Are aware of having a role within an extended community; feel a sense of responsibility towards others in the global community.

9. Possess Additional Language Ability. Believe that second language ability is important in order to be able to make switches internally to other frames of reference or worldviews.

10. Seek to Learn. Are active seekers of information about the global arena through reading, meeting people from other countries, and taking classes which have an international focus.

11. Possess a Futurist Perspective. Have a long-term perspective and try to be cognizant of the future

ramifications of current events and behaviors.

Research Question #3

What research has been done to identify concepts related to global-mindedness?

The concept most closely related to global-mindedness is worldmindedness, which was defined as a value orientation which favors a worldview of the problems of humanity, with or without an interest in international affairs (Sampson & Smith, 1957). Highly worldminded people consider themselves to be world citizens. In other words, they view humanity, not a specific nationality, as their primary reference group. This concept was integrated into the final Global-Mindedness Scale, but, based on the qualitative research, it reflected only a portion of global-mindedness.

Several additional areas of study were explored in order to develop a deeper understanding of global-mindedness and all that the term connoted. These were internationalism and international understanding, feminist scholarship, research on the impact of global perspectives curricula and study abroad experiences, community-based ethics, and futurism.

Research Question #4

What instruments have been developed to measure concepts related to global-mindedness?

The existing instruments which relate to global-mindedness and provided a source of items for the Global-

Mindedness Scale include: (a) Attitudes of World Citizenship (Lentz, 1950), (b) Worldmindedness Scale (Sampson & Smith, 1957), (c) Culture Shock Inventory (Reddin, 1975), (d) Future World Perspectives Scale (Silvernail, 1979), and (e) The Global Understanding Project (Barrows et al., 1981). The Barrows et al. instrument was the most comprehensive and useful to this research.

The aspects of global-mindedness which are measured by these instruments revolve around five major themes: (a) personal attributes, (b) political attitudes, (c) concern, (d) knowledge, and (e) prejudice. The term personal attributes includes personal characteristics such as adaptability, flexibility, sensitivity, and openness. Political attitudes reflects attitudes towards war, disarmament, world government, and immigration. Concern incorporates a sense of kinship and empathy for people in other nations as well as an interest in international affairs. The fourth term, knowledge, incorporates the information one has about international relations, cultural difference, and economic and governmental systems. Finally, prejudice includes chauvinism, ethnocentrism, racism, and excessive patriotism. Table 2.3 presents the dimensions of global-mindedness that are reflected in existing empirical instruments.

Research Question #5

What characteristics does the literature suggest might be predictors of global-mindedness?

The literature review provided numerous criteria which served to establish the validity of the Global-Mindedness Scale. The literature suggests that students who might score higher on the Global-Mindedness Scale would:

(a) be female, (b) have attained junior or senior class standing in college, (c) have taken several internationally-oriented courses, (d) report regularly reading international news in a newspaper, (e) express high political interest and liberal political attitudes, (f) be an activist, (g) often interact with persons from countries and cultures other than their own, (h) be proficient in a second language, and (i) have spent significant time outside of their own country.

The GMS confirms many of the expectations derived from the literature. Students who scored significantly higher on the instrument: (a) were female, (b) were registered at a college which requires a broad internationalized curriculum, (c) had enrolled in a total of five or more classes with an international focus, (d) participate in internationally oriented activities, (e) possess a strong degree of political interest and liberal political attitudes, (f) have friends from other countries or cultures, and (g) have studied or lived outside the United States for nine weeks or

more. Class level, age, ethnicity, country of birth, and additional language ability were not related to global-mindedness scores.

Research Question # 6

Can a valid and reliable instrument which expands upon already existing instruments be developed for the measurement of global-mindedness?

The 30-item, five factor Global-Mindedness Scale (Appendix I) developed through this research meets the criteria established by Hudson (1981) for psychometric measures (cited in Hudson, 1982). It is reliable, valid, short, easy to administer, easy to score and easy to understand and interpret. As discussed below, accepted psychometric procedures for instrument development were used to establish the content validity, internal consistency reliability, factorial validity, and, multidimensionality of the Global-Mindedness Scale, as well as its convergent validity with a related tool.

Content Validity. A Content Validity Index (CVI) was established by a panel of four content judges. The CVI for the overall tool was .88, well above the suggested minimum of .80 (Nunnally, 1978; Quayhagen, 1989; Waltz, Strickland & Lenz, 1984). Ninety-one items, including attitudes and behaviors were submitted to the judges for their review. Forty-six attitudinal items and 18 behavioral items remained after removing those which did not meet the minimum

criteria.

Pilot Study. A pilot study was conducted on a sample of six undergraduates at the University of California, San Diego. Behaviors and attitudes were separated into two separate scales and several items were reworded based on the feedback of the pilot group.

Sample. A total of 396 undergraduates at the University of California, San Diego completed the instrument, which was labelled as a Student Attitude Survey. Demographic data are presented in Table 4.1.

Internal Consistency Reliability. The standardized item alpha, or Cronbach's alpha for the overall tool was .90. Each of the five factors demonstrated acceptable levels of reliability, ranging from .65 to .80 (Table 4.5).

Factor Analysis. Five successive factor analyses and the elimination of items which did not load highly on a single factor resulted in a 30-item, five factor solution. The five dimensions of global-mindedness that emerged were (a) Responsibility - 7 items, (b) Cultural Pluralism - 8 items, (c) Efficacy - 5 items, (d) Globalcentrism - 5 items, and (e) Interconnectedness - 5 items. All but one of the items loaded on a factor at above .35. Table 4.4 presents the 30 items that were retained, the dimension on which they loaded, and the salience of the loading.

A factor analysis and correlation study were also performed on the 18-item behavior scale, reducing it to a

nine item scale which had a correlation of .61 with the overall tool, providing further evidence of construct validity. The reduced nine item behavior scale is presented in Table 4.17.

Dimensionality. Moderate correlations between subscales, ranging from .43 to .52, indicated that the Global-Mindedness Scale was multidimensional and that each of the five factors addressed a different aspect of global-mindedness.

Convergent Validity. The Global-Mindedness Scale demonstrated a strong correlation of .65, significant at the .001 level, with the Chauvinism subscale (when reverse-scored) of the Global Understanding Project (Barrows et al., 1981). It showed a lower positive correlation of .32, significant at the .01 level, with the International Concern subscale (Yachimowicz, 1988) which was also adapted from the Global Understanding Project.

Research Question #7

Does the instrument discriminate among significantly different levels of global-mindedness based on characteristics suggested by a review of the relevant literature?

The Global-Mindedness Scale did discriminate among different levels of global-mindedness and there were significant differences between groups as suggested by the literature.

The significant differences discovered by this research were:

1. Women scored significantly higher than men ($p < .001$) on the Global-Mindedness Scale.
2. Students at Fifth College, which has a globalized curriculum and a strong focus on the international arena, scored significantly higher than students at Warren College, another of UCSD's undergraduate colleges, which does not require an international component ($p < .05$). The majority of the respondents were sophomore level or above and as a result had experienced at least four academic quarters at the University.
3. Students who reported doing one or more of the following, scored significantly higher: (a) taking five or more global studies courses ($p < .05$), (b) participating regularly in internationally-oriented programs and activities ($p < .05$), and (c) having two or more friends from countries or cultures other than their own ($p < .05$).
4. Respondents who reported stronger political interest (as indicated by how often they talk about politics with others) and those with more liberal political views had significantly higher global-mindedness scores ($p < .05$).
5. Finally, the global-mindedness scores of students who had spent more than nine weeks out of their home country were significantly higher than the scores of those who had never travelled outside the country or who had only made one

or two brief trips abroad ($p < .05$).

Recommendations

Recommendations that emerge from this research focus on two distinct areas--the instrument itself, and the development of global-mindedness in students. The first relates to Phase 7 of the retroductive triangulation process--recommendations for reformulating and retesting the measure. Future research may improve upon the instrument itself and the reliability and validity of its results. The second area of recommendations is more tentative. It was not the purpose of this research to develop recommendations for educators on how to develop greater levels of global-mindedness in students, but some suggestions are implicit in an analysis of the data.

Recommendations for Future Development of the Global-Mindedness Scale

Based on this research, there are several recommendations that can be made for future development and utilization of the Global-Mindedness Scale.

1. Probably the greatest unknown in this research, although the results were statistically acceptable and logical, is the degree to which the imminent war with Iraq affected student responses. The research should be replicated in peacetime. It would have been interesting, had the instrument been developed earlier, to have compared a sample in July of 1990, while most Americans were riding

high on the new democracy that seemed to be coming to Eastern Europe and the Soviet Union; with a sample in February, 1991, when the United States was one month into a war of uncertain duration. There is a sense in which the Global-Mindedness Scale seems to tap a sense of optimism about the human condition, and this hope was considerably reduced with the advent of war.

2. Future formulations should explore ways to word items so that there is a broader response set. The social desirability of the global-minded items may have influenced students to respond more strongly in the affirmative than they might have if the items had been more neutrally worded.

3. Sampling should be much broader for a replication of this research. The original intention was to sample equal numbers of all four class levels at UCSD's five undergraduate colleges. This was interrupted by the declaration of war two-thirds of the way through the sampling procedure. It would also be valuable to compare students at different kinds of institutions such as community colleges, state colleges, and private universities.

4. The use of the multimethod-multitrait matrix (Campbell & Fiske, 1959) to further confirm validity would be appropriate for subsequent testing of the psychometric properties of this scale. Utilizing this procedure would require finding instruments which measure constructs similar

to global-mindedness and different from global-mindedness which utilize different methods of instrumentation.

5. A careful review of the anchors used would be appropriate for future formulation of the scale. On the final version of the Global-Mindedness Scale, no opinion, was changed to unsure, based on comments made by participants in the research. Consideration might be given to a four or six point continuum which would force respondents to choose a more positive or negative response to each item.

6. There are several groups on whom it would be very interesting to test the instrument, including students before and after participation in (a) a foreign exchange program, (b) a group living experience such as an international house, (c) global studies courses, or (d) internationally-oriented educational and social programs. There would be two points of interest here. To what degree do global-minded students self-select to participate in these experiences, and how much does the experience itself enhance global-mindedness? Answering this question would begin to address the issue of circularity and causality which emerges repeatedly in research on global attitudes (Bochner, Lin & McLeod, 1979)

7. The final recommendation would be to replicate the qualitative interview process to uncover further dimensions of global-mindedness. The richness of qualitative research

is enhanced through the collection of additional data and subsequent analysis.

Recommendations for Developing
Global-Mindedness in College Students

The purpose of this research was to develop an instrument to measure the affective component of a global perspective, not to establish causality between global-mindedness and educational interventions. It does, however, have certain implications for educators at the undergraduate level.

1. Encouragement of study abroad programs, particularly for men, who are underrepresented in international exchange programs and who scored significantly lower on the Global-Mindedness Scale. At an institution like the University of California, San Diego, where men represent a disproportionately large percentage of the majors in technical and scientific fields, this may have implications for the programs offered. Study abroad may seem to be too large a time commitment when it interrupts the tightly scheduled and sequential programs of study found in some disciplines. Further research might focus on the kinds of programs in which students in technical majors would be willing to participate, such as a one semester exchange at an institution with a strong engineering program. The liberal arts emphasis of most study abroad programs may not meet the needs of students in highly

technical majors.

2. Introduction of international content into the curriculum wherever possible. While this research did not establish causality, there was a significant difference in the level of global-mindedness between those students who had taken fewer than three globally-oriented courses and those who had taken five or more.

3. Development of programs that expose students to people from countries other than their own and to internationally-oriented social and educational activities. The higher level of global-mindedness found among students with two or more friends from a country or culture other than their own supports the development of international living centers and other programs which encourage students to meet foreign nationals. The higher global-mindedness scores of students who regularly discuss politics suggests that offering a variety of forums for exchange of political ideas might also enhance global-mindedness.

CONCLUDING REMARKS

Educators must strive to prepare students to address the challenges of the next century. The future calls for leaders who are not limited by ethnocentric, parochial thinking; who have developed the skills to communicate across cultural differences; and who can envision cooperative, global solutions. For moral, ecological, and economic reasons, we must move beyond trying to understand

our experience on earth solely in terms of the privileged lives we lead in the United States. We must begin to understand that our fate is inextricably linked to that of the rest of humanity.

In their written comments on the Global-Mindedness Scale, students reflected a growing awareness of their role within the global community and an ambivalence towards assuming this responsibility. They wrote, "The Iraq crisis is making me think a lot about my part in the world. I find it hard to agree with those who say what is going on in other parts of the world doesn't affect us." They voiced their frustration: "I feel like everything I hear or read is so biased. I feel like I can't find out the truth about global events." They spoke of their powerlessness: "I feel sort of helpless. . . . I find that I am more involved in the isolation of the mind than in actual activity. . . . What can one person do?" And they offered glimmers of hope: "One person can't change the world, but you have to start somewhere. Together maybe all those individuals can make a difference."

Given the nature of the contemporary world and the foreseeable future, a university education should develop in students (a) a sense of responsibility to and concern for the world community, (b) an understanding of and appreciation for the diversity of cultures on earth, (c) a sense of efficacy in addressing global problems, (d) an

ability to analyze problems of resource management and global decision making through a nonethnocentric lens, and (e) an understanding of the interconnectedness of the global system.

It is difficult to have a sense of responsibility if one feels wholly powerless and unconnected to events (Gardner, 1990). The role of education in this context is to help students develop a global worldview which is comprised of an informed knowledge base as well as an affective component. Through educational experiences, students can come to feel a sense of global connection and concern and, most critically, to develop some competence in exercising influence within the context of a global society. The Global-Mindedness Scale contributes an initial instrument for the assessment of efforts to develop this perspective.

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APPENDIX B

THEMATIC INTERVIEW GUIDE

- * What does the term global-mindedness mean to you?
- * What are some of the attitudes and beliefs you would expect from someone who is global-minded?
- * What kinds of behaviors would you expect from someone who is global-minded?
- * How does someone become more global-minded?
- * What changes would you expect to see in someone who had lived abroad for a year?
- * What beliefs and behaviors seem to be the opposite of global-mindedness?
- * Do you consider yourself to be global-minded? If so, what experiences or beliefs contributed to the development of your own global-mindedness?
- * How do you feel we can develop global-mindedness in college students?

APPENDIX C
UNIVERSITY OF SAN DIEGO
SCHOOL OF EDUCATION
INTERVIEW CCNSENT FORM

You are being asked by Jane Hett, a doctoral candidate in the School of Education at the University of San Diego, to participate in a study to develop a research tool. The intent of this tool is to gain insight into the development of attitudes towards the world in which we live. If you agree, you are asked to take part in an informal verbal interview with Jane Hett about what these attitudes are and the behaviors and characteristics associated with them.

Your name and this consent form will not be attached to your responses from the interview. The data from the study will be analyzed and published only in group form to maintain confidentiality of each participant. The researcher will be the only individual to see this consent form.

No risk or discomfort is expected as a result of participating in the study. Participation in the study is completely voluntary. There is no agreement, written or verbal, beyond that which is expressed in this consent form. You may refuse to participate or may withdraw from the study at any time without risk or penalty. Please ask any questions you may have at any time during your participation.

Thank you for your interest and cooperation.

_____ Signature of Participant	Date: _____
_____ Location	
_____ Signature of Researcher	Date: _____

APPENDIX D
Global-Mindedness Scale
Items Listed by Dimension

Interconnectedness of Humanity- 8 items

- 5. What happens in other countries has little impact on what happens in this country. (reverse)
- 11. In the long run, Americans will probably benefit from the fact that the world is becoming more interconnected.
- 17. I feel a strong kinship with the worldwide human family.
- 22. I have very little in common with people in underdeveloped nations. (reverse)
- 29. Social problems are rapidly becoming globalized.
- 31. I think of myself, not only as a citizen of my country, but also as a citizen of the world.
- 35. It is not really important to me to consider myself as a member of the global community. (reverse)
- 41. My behavior can impact people in other countries.

Cultural Pluralist- 15 items

- 1. Americans can learn something of value from all different cultures.
- 6. The values of my culture are not necessarily the best.
- 7. I feel irritated with people from other countries because they don't understand how we do things here. (reverse)
- 12. American people are probably the best in the world. (reverse)
- 13. I am not interested in learning about other cultures. (reverse)
- 18. It is probably a good idea to use ethnicity as one of the criteria for deciding who should be allowed to immigrate to the United States. (reverse)

21. The thought of travelling to other countries doesn't appeal to me very much. (reverse)

24. I like to compare the values and customs of my country with those of other countries.

27. The United States is enriched by the fact that it is comprised of many people from different cultures and countries.

32. It is important that universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.

36. I think some cultures value human life less than mine does. (reverse)

37. I generally find it stimulating to spend an evening talking with people from another culture.

38. I enjoy trying to understand people's behavior in the context of their culture.

42. I would not want to live or study in another country. (reverse)

43. It's not a high priority for me to learn or be able to speak another language since English is an international language. (reverse)

Ethic of Responsibility/Care- 11 items

3. We must sometimes give up what we want as individuals for what is best for our community.

9. The needs of the United States must continue to be our highest priority in negotiating with other countries (reverse)

14. I feel an obligation to speak out when I see our government doing something I consider wrong.

15. I feel very concerned about the difficult lives of people who live in politically repressive regimes.

19. The fact that a flood can kill 5,000 people in India is very depressing to me.

25. When I see the conditions some people in the world live under, I feel I must do something.

26. When I hear that thousands of people are starving in an African country, I feel very frustrated.

28. Americans have a moral obligation to share their wealth with the less fortunate peoples of the world.

33. My opinions about national policies are based on how those policies might affect the rest of the world as well as the United States.

39. I sometimes try to imagine how a person who is always hungry must feel.

45. I am considering joining the Peace Corps or some similar international service organization at some point in my life.

Futurist Orientation- 12 items

2. I am able to affect what happens on a global level by what I do in my own community.

4. Generally an individual's actions are too small to have a significant effect on the world's ecosystem. (reverse)

8. Really, there is nothing I can do about the problems of the world. (reverse)

10. People should be permitted to pursue the standard of living they can afford, even if it has a negative impact on the environment. (reverse)

16. It is a waste of time to worry about the long term future since we can't control what will happen anyway. (reverse)

20. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest. (reverse)

23. I often think about the kind of world we are creating for future generations.

30. Technology will solve most of the problems we currently face in the world. (reverse)

34. It is important that we educate people to understand the impact that current policies might have on future generations.

40. Concessions on the part of my country to other countries are morally right if the concession will promote peace.

44. I plan to pursue a career in which I can have a positive effect on the quality of life of future generations.

46. The primary goal of American foreign policy should be to promote peaceful resolution of international conflict.

BEHAVIORS- 18 items

47. I participate in or contribute money to an organization which is combatting world hunger.

48. I participate in an organization which has ecological concerns as a part of its agenda.

49. I participate in an organization which publicly expresses its concern on national or international issues.

50. I participate in or contribute money to an organization which supports universal human rights.

51. I seek out opportunities for meeting people who speak other languages.

52. I recycle paper, plastic, etc.

53. I vote in local, state and national elections.

54. I look for opportunities to meet people from backgrounds different from mine.

55. My friends and I discuss current events and world issues.

56. I read news articles about international events.

57. I participate in events with an international focus.

58. I contribute time or money to political causes.

59. I read books or magazine articles about other cultures.

60. I participate in political demonstrations.

61. I make a point to watch television specials about foreign countries and their cultures.

62. I participate in student programs and activities that broaden my understanding of ethnic groups other than my own.

63. I write to members of Congress and other political leaders to express my views.

64. I try to acquire information about international developments.

APPENDIX E
Content Validity Index
Global-Mindedness Scale

Thank you for serving as a content validity judge for the items developed to measure the concept of global-mindedness.

The purpose of this instrument is to gain insight into the attitudes, beliefs and behaviors associated with global-mindedness. It is anticipated that this tool will be used with college students to assess the effectiveness of courses with a global focus, the impact of an overseas experience on world view or the results of significant contact with people from other countries.

Global-mindedness is defined as a world view in which one sees oneself as connected to the world community and feels a sense of responsibility for its members. Global-minded people are keenly interested in world affairs and see value in a variety of cultural frameworks. They have an understanding of the long-term ramifications of their own behavior on the environment and on global society and possess a sense of efficacy in addressing world problems.

DIRECTIONS:

- * The instrument development process commenced with a thorough literature review and interviews with 14 people who, through their experience or involvements, were assessed to be global-minded. Six significant dimensions, which were supported by the literature, emerged from the interviews. They were: Interconnectedness of Humanity, Cultural Pluralist, Activism, Ethic of Responsibility/Care, Interest in World Affairs and Futurist Orientation.

A pool of items, which includes both attitudes and behaviors, has been developed for each dimension.

- * Excerpts from the interviews are listed under each dimension. These quotations and the enclosed yellow page of definitions should serve as a guide in determining if the statement seems to be a valid measure of that dimension.
- * Rate each item in terms of its validity as a measure of the specified dimension of global-mindedness. (Reverse) means that the item should reflect the opposite of that dimension.

- * Check the box next to each item which you feel best indicates its validity from 1 (not valid) to 4 (very valid).
- * Please remember to focus on if the content of an item is appropriate to that dimension...not if you agree or disagree with the item.
- * Feel free to write comments and suggestions. Any suggestions on how to improve the clarity of wording would be especially helpful.

FOR EXAMPLE:

First read the definition of **Interconnectedness of Humanity** and the quotations from the interviews.

The first item could be:

1. I think of myself primarily as a citizen of the world, not as a citizen of one country.

NOT VALID	SOMEWHAT VALID	QUITE VALID	VERY VALID
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you feel that an affirmative answer to that statement would be a quite valid indicator of someone who was aware of the interrelatedness of all nations and peoples, felt a sense of kinship with other people and had a sense of global belonging; then you would mark it as above. If you felt it was only somewhat valid, you would mark that box, etc.

- * Your careful consideration of each item is greatly appreciated. THANK YOU SO MUCH FOR YOUR HELP!
- * Please proceed and begin on the next page.

Definitions of Global-Mindedness and Its Components

Please use this definition sheet as a guide when determining the validity of each item.

Interconnectedness of Humanity

An awareness of the **interrelatedness of all nations and peoples**; a recognition of the **complexity of these relationships**, and the processes involved in them; and a sense of **kinship** with people all over the world. A sense of belonging to the "human family" or **global belonging**.

Cultural Pluralist

An **appreciation** for the diversity of cultures in the world and culture's impact on worldview; a belief that all cultures have something of value to offer and that Americans can and should **strive to learn from other cultures**; **absence of prejudice** and **western ethnocentrism**; and personal characteristics that would make one open to cultural difference such as **openness, flexibility** etc.

Activism

A commitment to **making a difference** and **getting involved** in national and international issues. A **sense of efficacy** and a conviction that one person can make a difference.

Ethic of Responsibility/Care

A deep personal **concern** for people in all parts of the world which surfaces as a sense of moral **responsibility** for others and a **community** (as opposed to individualist) orientation.

Interest in World Affairs

Actively seeking out information on world affairs on a regular basis.

Futurist Orientation

An awareness of **long-term consequences** and ramifications of behavior on the **environment** and on global society; a focus on non-violent conflict resolution and **cooperative international relations**; belief in **appropriate technology**, **selective economic growth** and **meeting universal human needs**.

These definition should serve as a reference point as you go through the draft of the instrument. Thank you.

Interconnectedness of Humanity

"thinking of yourself as a world citizen"
 "the unit to be concerned with is the planet and the species"
 "unity of humanity"
 "global belonging"
 "a sense of the interrelatedness of all cultures"
 "I feel a sense of kinship for women all over the world"
 "interconnectedness"

Attitudes/Beliefs:

1. What happens in other countries has little impact on what happens in this country. (reverse)

2. What is good for the world is good for me.

3. The world is becoming one interdependent network.

4. I think of myself, not only as a citizen of my country, but also as a world citizen.

5. It is not really important to me to consider myself as a member of the global community. (reverse)

6. (Women only) I feel a sense of kinship with women all over the world.

7. (Men only) I feel a sense of kinship with men all over the world.

8. Understanding world realities is best approached through studying issues such as population, health, food problems, arms control and poverty.

9. Social problems are rapidly becoming globalized.

NOT VALID SOMEWHAT VALID QUITE VALID VERY VALID

Futurist Orientation

"being able to envision what's to come"

"a global-minded person has a better sense of comparing immediate and short term, versus long-term consequences"

"the global awareness movement is well-married to the futurist movement"

"realize ramifications"

"global-mindedness involves looking to the future"

"you want to protect the globe"

"involvement in environmental issues and recycling"

-belief in selective economic growth, cooperative international relations, appropriate technologies and meeting universal human needs (Silvernail, 1978)

Attitudes/Beliefs:

73. Generally an individual's actions are too small to have a significant effect on the world's ecosystem. (reverse)

74. It is important that we educate children to protect the earth.

75. People should be permitted to pursue the standard of living they can afford, even if it has an impact on the environment. (reverse)

76. Degradation of the environment is a form of violence.

77. Because of their population growth, less developed countries account for a disproportionate share of the increase in demands on natural resources. (rev.)

78. There are not enough resources to provide adequately for all the peoples of the world. (reverse)

79. Technology will solve most of the problems we currently face in the world. (reverse)

80. Sometimes violence is the only way to resolve conflicts. (reverse)

81. It is important that we explore alternative economic systems in order to meet the needs of all human beings.

NOT SOMEWHAT QUITE VERY
VALID VALID VALID VALID

APPENDIX F
GLOBAL-MINDEDNESS SCALE, FORM A

Dear Student:

Thank you for taking the Student Attitude Survey. I am conducting this survey and analyzing the results in order to complete my doctoral dissertation at the University of San Diego. As you will be able to tell from the questions, I am looking at student attitudes towards a variety of topics related to the current world situation.

There are no right or wrong answers on this survey. It is anonymous, so your answers will be entirely confidential.

The survey may be completed in pen or pencil.

When you have answered all the questions please return the survey to the person who originally distributed it. He or she will give you a coupon as an expression of my appreciation for your time.

Thank you again for your assistance.

**E. Jane Hett, Doctoral Candidate
University of San Diego**

Student Attitude Survey

In order to analyze the data on this survey we need some information on your background, academic experience and international experience. Please check the most accurate answer for each of the following questions. Thank you.

1. Sex: ☐ Male ☐ Female

2. Current class level: ☐ FR ☐ SO ☐ JR ☐ SR

3. Age on your last birthday _____

4. What is your field of study?
☐ Arts
☐ Engineering
☐ Humanities
☐ Science/Math
☐ Social Science
☐ Undeclared
☐ Double/Special _____
(please indicate)

5. College of Registration: REVELLE MUIR THIRD WARREN FIFTH
(circle one)

6. How would you describe yourself?
☐ African-American/Black
☐ Native American/American Indian
☐ Asian American/Pacific Islander
☐ Chicano/Mexican American
☐ Filipino
☐ Latino/Other Hispanic
☐ White
☐ Other _____

7. Were you born in the United States?
☐ Yes
☐ No

8. If you were not born in the United States, please indicate how old you were when you first came to the United States. _____
(age in years)

9. If you were not born in the United States, do you consider yourself a permanent resident of the United States?
☐ Yes
☐ No

10. Please estimate the number of college courses (including this quarter) you've taken which deal with global issues or in which you've learned a lot about countries besides the United States. If a course spans more than one quarter, count each quarter as a separate course.

- ☐ None
- ☐ 1-2 courses
- ☐ 3-4 courses
- ☐ 5-6 courses
- ☐ 7-8 courses
- ☐ More than 8 courses

11. Please estimate the number of programs or activities (excluding class activities) you went to last quarter in which the focus was on another country (eg. political speaker, presentation on the dance or art of another culture, foreign film, etc.).

- ☐ None
- ☐ One
- ☐ Two
- ☐ Three-Four
- ☐ Five or more

12. How often do you watch world or national news on television? (check one)

- ☐ Less than once a week
- ☐ 1-2 times a week
- ☐ 3-4 times a week
- ☐ 5-6 times a week
- ☐ Daily

13. How often do you read a newspaper?

- ☐ Less than once a week
- ☐ 1-2 times a week
- ☐ 3-4 times a week
- ☐ 5-6 times a week
- ☐ Daily

14. When you read a newspaper, which sections do you usually read? (check all that apply).

- | | |
|---|--|
| <input type="checkbox"/> Sports | <input type="checkbox"/> Entertainment |
| <input type="checkbox"/> Local news | <input type="checkbox"/> National news |
| <input type="checkbox"/> International news | <input type="checkbox"/> Financial section |
| <input type="checkbox"/> Editorials | |

15. Which do you consider the main source of the information you acquire concerning current events? (check one)

- | | |
|-------------------------------------|-----------------------------------|
| <input type="checkbox"/> Newspapers | <input type="checkbox"/> Radio |
| <input type="checkbox"/> Magazines | <input type="checkbox"/> Teachers |
| <input type="checkbox"/> Television | <input type="checkbox"/> Friends |

16. How often do you talk about politics with other people?

- ☐ Almost never
- ☐ From time to time
- ☐ About once a week
- ☐ Several times a week
- ☐ Nearly every day

17. Are any of your friends of cultures or countries other than your own? (check all that apply)

- ☐ No
☐ 1 or 2 acquaintances
☐ 1 friend
☐ 2 or 3 friends
☐ More than 3 friends

18. How would you characterize your political views?

☐ Far Left ☐ Liberal ☐ Middle-of-the-road ☐ Conservative ☐ Far Right

Language Proficiency

*For this section, "first" language refers to the language in which you are most fluent. "Second" language refers to the language which you find the next most comfortable.

19. What is your first language?

☐ English ☐ Spanish ☐ Other _____

20. Have you ever studied or learned a language other than your own?

- ☐ Yes
☐ No (if no, skip to question #22)

21. Listed below are a number of statements about your ability in the second language you know best. Please read each carefully and circle YES or NO to indicate whether, at the present time, you would be able to do this.

In the second language I know best, I could:

- | | | |
|---|-----|----|
| a. Say the days of the week | YES | NO |
| b. Give the current date (day, month, year) | YES | NO |
| c. Order a simple meal in a restaurant | YES | NO |
| d. Talk about my favorite hobby using appropriate vocabulary | YES | NO |
| e. In face-to-face conversation, understand a native speaker who is speaking slowly and carefully (deliberately adapting his or speech to suit me) | YES | NO |
| f. Tell what I plan to be doing five years now, using appropriate future tenses. | YES | NO |
| g. In face-to-face conversation, understand a native speaker who is speaking to me as quickly and as colloquially as she or he would to another native speaker. | YES | NO |
| h. State and support with examples and reasons a position on a controversial topic such nuclear arms or abortion. | YES | NO |
| i. Understand a play-by-play description of a sports event such as soccer on the radio. | YES | NO |

22. Experience outside U.S and Canada. Check all that apply.

☐ I have never travelled more than 200 or 300 miles from my home community.

☐ I have traveled only within the U.S., Canada, or the border areas of Mexico.

☐ I have made only one or two brief trips outside the U.S. and Canada.

☐ I have travelled outside the U.S. or Canada for three to nine weeks.

☐ I have travelled outside the U.S. or Canada for more than nine weeks.

☐ I have actually lived in a community (not in a hotel) outside the U.S. or Canada for more than nine weeks.

☐ I have actually attended school in a nation outside the U.S. and Canada.

23. Indicate the total length of time you have spent travelling, living, working or studying outside the United States.

☐ More than 1 year

☐ 7-12 months

☐ 4-6 months

☐ 1-3 months

☐ Less than one month

Please continue on next page.

Student Attitude Survey

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On the following pages you will find a series of statements. Please read each statement and decide whether or not you agree with it. Please circle the response that most accurately reflects your opinion. There are no "correct" answers.

Strongly Disagree = 1, Disagree = 2, No Opinion = 3, Agree = 4, Strongly Agree = 5

	SD	D	NO	A	SA
1. Americans can learn something of value from all different cultures.	1	2	3	4	5
2. I am able to affect what happens on a global level by what I do in my own community.	1	2	3	4	5
3. We must sometimes give up what we want as individuals for what is best for our community.	1	2	3	4	5
4. Generally an individual's actions are too small to have a significant effect on the world's ecosystem.	1	2	3	4	5
5. What happens in other countries has little impact on what happens in this country.	1	2	3	4	5
6. The values of my culture are not necessarily the best.	1	2	3	4	5
7. I feel irritated with people from other countries because they don't understand how we do things here.	1	2	3	4	5
8. Really, there is nothing I can do about the problems of the world.	1	2	3	4	5
9. The needs of the United States must continue to be our highest priority in negotiating with other countries.	1	2	3	4	5
10. Americans should be permitted to pursue the standard of living they can afford, even if it has a negative impact on the environment.	1	2	3	4	5
11. In the long run, Americans will probably benefit from the fact that the world is becoming more interconnected.	1	2	3	4	5
12. American people are probably the best in the world.	1	2	3	4	5
13. I am not interested in learning about other cultures.	1	2	3	4	5
14. I feel an obligation to speak out when I see our government doing something I consider wrong.	1	2	3	4	5

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	SD	D	NO	A	SA
	1	2	3	4	5
15. I feel very concerned about the difficult lives of people who live in politically repressive regimes.					
16. It is a waste of time to worry about the long term future since we can't control what will happen anyway.	1	2	3	4	5
17. I feel a strong kinship with the worldwide human family.	1	2	3	4	5
18. It is probably a good idea to use ethnicity as one of the criteria for deciding who should be allowed to immigrate to the United States	1	2	3	4	5
19. The fact that a flood can kill 50,000 people in India is very depressing to me.	1	2	3	4	5
20. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.	1	2	3	4	5
21. The thought of travelling to other countries doesn't appeal to me very much.	1	2	3	4	5
22. I have very little in common with people in underdeveloped nations.	1	2	3	4	5
23. I often think about the kind of world we are creating for future generations.	1	2	3	4	5
24. I like to compare the values and customs of my country with those of other countries.	1	2	3	4	5
25. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	1	2	3	4	5
26. When I hear that thousands of people are starving in an African country, I feel very frustrated.	1	2	3	4	5
27. The United States is enriched by the fact that it is comprised of many people from different cultures & countries.	1	2	3	4	5
28. Americans have a moral obligation to share their wealth with the less fortunate peoples of the world.	1	2	3	4	5
29. Social problems are rapidly becoming globalized.	1	2	3	4	5

	SD 1	D 2	NO 3	A 4	SA 5
30. Technology will solve most of the problems we currently face in the world.					
31. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	1	2	3	4	5
32. It is important that universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	1	2	3	4	5
33. My opinions about national policies are based on how those policies might affect the rest of the world as well as the United States.	1	2	3	4	5
34. It is important that we educate people to understand the impact that current policies might have on future generations.	1	2	3	4	5
35. It is not really important to me to consider myself as a member of the global community.	1	2	3	4	5
36. I think some cultures value human life less than mine.	1	2	3	4	5
37. I generally find it stimulating to spend an evening talking with people from another culture.	1	2	3	4	5
38. I enjoy trying to understand people's behavior in the context of their culture.	1	2	3	4	5
39. I sometimes try to imagine how a person who is always hungry must feel.	1	2	3	4	5
40. Concessions on the part of my country to other countries are morally right if the concession will promote peace.	1	2	3	4	5
41. My behavior can impact people in other countries.	1	2	3	4	5
42. I would not want to live or study in another country.	1	2	3	4	5
43. It's not a high priority for me to learn or be able to speak another language since English is an international language.	1	2	3	4	5

	SD	D	NO	A	SA
44. I plan to pursue a career in which I can have a positive effect on the quality of life for future generations.	1	2	3	4	5
45. I am considering joining the Peace Corps or some similar international service organization at some point in my life.	1	2	3	4	5
46. The primary goal of American foreign policy should be to promote peaceful resolution of international conflict.	1	2	3	4	5

The responses for the remaining statements are phrased somewhat differently. Please read each statement and decide whether you are likely to do this behavior "Never", "Rarely", "Sometimes", "Quite Often", or "Frequently". Circle the response that most accurately reflects how often you do this.

Never = 1, Rarely = 2, Sometimes = 3, Quite Often = 4, Frequently = 5

	N	R	ST	QO	F
47. I participate in or contribute money to an organization which is combatting world hunger.	1	2	3	4	5
48. I participate in an organization which has ecological concerns as a part of its agenda.	1	2	3	4	5
49. I participate in an organization which publicly expresses its concern on national or international issues.	1	2	3	4	5
50. I participate in or contribute money to an organization which supports universal human rights.	1	2	3	4	5
51. I seek out opportunities for meeting people who speak other languages.	1	2	3	4	5
52. I recycle paper, plastic, etc.	1	2	3	4	5
53. I vote in local, state and national elections.	1	2	3	4	5
54. I look for opportunities to meet people from backgrounds different from mine.	1	2	3	4	5

	N	R	ST	QO	F
55. My friends and I discuss current events and world issues.	1	2	3	4	5
56. I read news articles about international events.	1	2	3	4	5
57. I participate in events with an international focus.	1	2	3	4	5
58. I contribute time or money to political causes.	1	2	3	4	5
59. I read books or magazine articles about other cultures.	1	2	3	4	5
60. I participate in political demonstrations.	1	2	3	4	5
61. I make a point to watch television specials about foreign countries and their cultures.	1	2	3	4	5
62. I participate in student programs and activities that broaden my understanding of ethnic groups other than my own.	1	2	3	4	5
63. I write to members of Congress and other political leaders to express my views.	1	2	3	4	5
64. I try to acquire information about international developments.	1	2	3	4	5

Please indicate the level of attention you paid to this survey as you completed it?

___Low ___Moderate ___High

Please use the space below to make any comments concerning the survey as a whole or particular questions. I would appreciate any observations or suggestions you might have that would help to improve the survey or better analyze the results.

THANK YOU VERY MUCH FOR YOUR TIME! WHEN YOU TURN THIS IN PLEASE PICK UP AN ESPRESSO ROMA COUPON AS A TOKEN OF MY APPRECIATION.

APPENDIX G
CHAUVINISM SUBSCALE
(Barrows, 1981)

1. Pacifist demonstrations-picketing missile bases, peace walks, etc.- are harmful to the interests of the American people.	SD 1	D 2	NO 3	A 4	SA 5
2. The best way to insure peace is to keep the United States stronger than any other nation in the world.	1	2	3	4	5
3. The main threat to basic American institutions during this century has come from the infiltration of foreign ideas and doctrines.	1	2	3	4	5
4. The only way peace can be maintained is to keep America so powerful and well-armed that no other nation will dare attack us.	1	2	3	4	5
5. No duties are more important than duties towards one's country.	1	2	3	4	5
6. I'm for my country, right or wrong.	1	2	3	4	5

APPENDIX H
INTERNATIONAL CONCERN
(Adapted from Barrows (1981) by Yachimociz, 1989)

	SD	D	NO	A	SA
1. I believe that my country should send food and materials to any country that needs them	1	2	3	4	5
2. The mining and distribution of mineral resources should be controlled by an international authority.	1	2	3	4	5
3. We should have a world government with the powers to make laws that would be binding to all its member nations.	1	2	3	4	5
4. An international authority should be established and given direct control over the production of nuclear energy in all countries.	1	2	3	4	5
5. I prefer to be a citizen of the world than of any country.	1	2	3	4	5
6. It is our responsibility to do everything possible to prevent people from starving anywhere in the world.	1	2	3	4	5

APPENDIX I
GLOBAL-MINDEDNESS SCALE, FORM B

Student Attitude Survey

On the following pages you will find a series of statements. Please read each statement and decide whether or not you agree with it. Then circle the response that most accurately reflects your opinion. There are no "correct" answers.

Strongly Disagree = 1, Disagree = 2, Unsure = 3, Agree = 4, Strongly Agree = 5

	SD	D	U	A	SA
1. I generally find it stimulating to spend an evening talking with people from another culture.	1	2	3	4	5
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	1	2	3	4	5
3. The United States is enriched by the fact that it is comprised of many people from different cultures and countries.	1	2	3	4	5
4. Really, there is nothing I can do about the problems of the world.	1	2	3	4	5
5. The needs of the United States must continue to be our highest priority in negotiating with other countries.	1	2	3	4	5
6. I often think about the kind of world we are creating for future generations.	1	2	3	4	5
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	1	2	3	4	5
8. Americans can learn something of value from all different cultures.	1	2	3	4	5
9. Generally, an individuals actions are too small to have a significant effect on the ecosystem.	1	2	3	4	5
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	1	2	3	4	5
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	1	2	3	4	5

Strongly Disagree = 1, Disagree = 2, Unsure = 3, Agree = 4, Strongly Agree = 5

	SD	D	U	A	SA
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	1	2	3	4	5
13. I enjoy trying to understand people's behavior in the context of their culture.	1	2	3	4	5
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as the United States.	1	2	3	4	5
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	1	2	3	4	5
16. American values are probably the best.	1	2	3	4	5
17. In the long run, America will probably benefit from the fact that the world is becoming more interconnected.	1	2	3	4	5
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	1	2	3	4	5
19. It is important that American universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	1	2	3	4	5
20. I think my behavior can impact people in other countries.	1	2	3	4	5
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.	1	2	3	4	5
22. I feel a strong kinship with the worldwide human family.	1	2	3	4	5
23. I feel very concerned about the lives of people who live in politically repressive regimes.	1	2	3	4	5
24. It is important that we educate people to understand the impact that current policies might have on future generations.	1	2	3	4	5

Strongly Disagree = 1, Disagree = 2, Unsure = 3, Agree = 4, Strongly Agree = 5

	SD	D	U	A	SA
25. It is not really important to me to consider myself as a member of the global community.	1	2	3	4	5
26. I sometimes try to imagine how a person who is always hungry must feel.	1	2	3	4	5
27. I have very little in common with people in underdeveloped nations.	1	2	3	4	5
28. I am able to affect what happens on a global level by what I do in my own community.	1	2	3	4	5
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.	1	2	3	4	5
30. Americans have a moral obligation to share their wealth with the less fortunate peoples of the world.	1	2	3	4	5

SCORING KEY: Reverse score items: 4, 5, 9, 10, 16, 21, 25, 27, 29

SCORING: * Range of scores 30 - 150
 * Sum all responses
 * Higher scores indicate a higher level
 of global-mindedness

ITEMS REFLECTING THEORETICAL DIMENSIONS

RESPONSIBILITY: 2, 7, 12, 18, 23, 26, 30

CULTURAL PLURALISM: 1, 3, 8, 13, 14, 19, 24, 27

EFFICACY: 4, 9, 15, 20, 28

GLOBALCENTRISM: 5, 10, 16, 21, 29

INTERCONNECTEDNESS: 6, 11, 17, 22, 25

— — —